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Progress in Medical Sciences.

ARTICLE I.—*Progress of Surgery.* By JNO. E. OWENS, M.D., Lecturer on Surgery, Rush Medical College, Chicago.

1. (*a.*) Oakum for Drainage. (*b.*) Deformity after Fracture. Reported by Dr. PERRY, House Physician at Bellevue Hospital. (*The Medical Record*, New York, August 1, 1874.)

2. Treatment of Varices by Local Application of Perchloride of Iron. By Dr. LINON, of Verviers. (*The Lancet*, *The Medical Record*, New York, August 1, 1874.)

3. An Unnatural Position of the Head a Cause of Death from Anæsthetics. By Dr. G. W. COPELAND. (*The Medical Record*, New York, August 1, 1874.)

4. Result of Billroth's Case of Extirpation of the Larynx. (*The Boston Medical and Surgical Journal*, August 27, 1874.)

5. Surgical Treatment of Empyema. By HENRY CLARKE, M.D. (*The Boston Medical and Surgical Journal*, August 20, 1874.

1. (*a.*) For the purpose of securing free discharge from the bottom of deep wounds, after operation for excision of the hip-joint, for instance, the use of oakum is advocated. It is claimed

that oakum will permit free discharge, and, at the same time, help to absorb it. It is regarded as of special importance in exsection of the hip-joint, to maintain firm compression about the wound, in order to give additional security against infiltration of the tissues with the discharge. This is best accomplished, after plugging the wound with the oakum, by covering the part with a thick layer of the same, and applying over all, with sufficient firmness, a roller bandage.

(*b.*) Deformity after fracture is very apt to occur, especially in the lower extremities, if the soft callus is not properly protected for some time after union has taken place. If supporting apparatus is not used when the patient commences to walk around, the soft material will commence to yield, and ugly deformity may result, much to the annoyance of both patient and surgeon.

2. Dr. Linon has used perchloride of iron, locally, with great success in the treatment of varices. The strength of the solution is two and a half drachms to eight ounces of water.

Compresses of flannel are steeped in the solution, then wrung out and applied by means of a flannel bandage, which is only moderately tightened. This application is to be kept on twenty-four hours, and, upon its removal, the surgeon will be much surprised to find that the venous dilatations have almost entirely disappeared. The applications are to be renewed, as above, during seven or eight days successively, after which time the bandage is to be kept on, without any further wetting, till it becomes loose. It is then to be wetted with the solution again, and applied until the varices have disappeared, which generally takes place after eight days or two weeks, according to the size of the swelling. Dr. Linon has been able to show that the success is to be attributed to the local action of the iron, and not to the compression.

3. Dr. Copeland's paper on the "Styloid Muscles and Anæsthetics," appeared in the Boston *Medical and Surgical Journal* of February, 1874. The cause of impeded breathing during anæsthesia was attributed to the action of the styloid muscles in closing the glottis. It was shown that the difficulty could always be relieved by simply tilting the head forward in order to relax these muscles, without making traction on the tongue. It is further

claimed (Philadelphia *Medical Times*, May 30) that death from chloroform and other anæsthetics is often caused by an unnatural position of the head, the latter being thrown back and the styloid muscles put upon the stretch. The author endeavors to show that all deaths from nitrous oxide gas, and a large number of those from other anæsthetics, have taken place while the patients were in a sitting position, which position would allow the head to fall further back than if they were lying down. Further, deep inspirations through the mouth rapidly inflate the lungs, but they (the lungs) as rapidly become emptied, leaving a long interval during which there is but little vapor in the lungs. Inhalations through the nose are recommended, since it requires a much longer time to inflate the lungs, and a much longer time to empty them, leaving no interval.

4. Upon the authority of the *Medical Times and Gazette*, the journal referred to in the index records the death of Billroth's case of extirpation of the larynx. The operation was performed on the 31st of January last, and death occurred July 7th. The cancer, the disease which necessitated the operation, reappeared locally soon after the return of the patient to his home.

5. Dr. Clarke reports five cases of empyema, treated by means of free openings, viz.:

CASE 1.—The puncture was made, with the small trocar of the Bowditch apparatus, in front, in the fifth intercostal space, midway between the axillary and mammary lines. Three pints of pus were pumped off. The patient improved for ten days. At the end of two weeks, however, he began to complain of increased oppression in breathing, to have more fever and perspiration, and the physical signs already indicated the re-accumulation of the fluid. The patient growing steadily worse, three weeks from the date of the first puncture, consent was obtained to make a free opening in the chest-wall. The point selected was the same selected for the former puncture. The opening gave exit to three pints of pus. A piece of soft linen was placed in the opening. The pleural cavity was washed, at first, with a solution of carbolic acid, one part of the acid to ninety-nine parts of water, and finally with one containing two teaspoonsful of liquid carbolic acid to

a pint of water and one ounce of glycerine. By May 12th, about two months from the time of the operation, the discharge having nearly ceased and become more serous, the opening was allowed to close, which it did almost immediately. The patient continued to cough for nearly two months longer, but at last made a good recovery.

CASE 2.—The patient was an inmate of the City Hospital at Worcester, and had been ill five months. An inflamed tumor, fluctuating and tender, supervened at the left lower lateral chest. During an attack of vomiting he felt something give way in the locality of the lump, and soon after coughed up pus in sufficient quantity to fill both the mouth and nose. On the twenty-third day after his admission, a free incision was made in the tumor. Pus discharged freely, and the pleural cavity was washed out twice daily with carbolic acid. After three or four days the patient was able to taste the acid at each injection. A harassing cough was almost immediately relieved, the breathing became easy, and in three weeks from the date of the opening the discharge had become quite small in quantity. June 14th, the patient (admitted May 22d) was allowed to return home. Soon after, the wound quite healed, and he made a good recovery.

CASE 3.—This patient was a scrofulous child, aged four and a half years. Suppurative pleurisy followed scarlatina. This little girl recovered from a very extreme condition, and nothing but the surgical treatment employed could have saved her life. Soon after the case came under Dr. Clarke's care, he was summoned in haste to find the patient in a convulsion. Subsequently her pulse was 160, and the temperature fluctuated very much, ranging from 100° to 106°.

On the twenty-second day of the illness, more than a quart of pus was withdrawn by aspiration, the patient being under the influence of chloroform. Relief was immediate; the temperature fell, the cough lessened, and the appetite improved. Improvement, however, continued only four or five days, and at the end of a week after the tapping it was decided to make a free opening in the chest, in the fifth intercostal space, between the mammary and axillary lines. Fully a quart of pus escaped. The cavity was washed daily with the following solution: A teaspoon-

ful of liquid carbolic acid and about an ounce of glycerine to a pint of blood-warm water.

Five weeks after the last operation, the discharge still being abundant, a solution of iodide of potassium, with tincture of iodine, was substituted for that of carbolic acid. The discharge then diminished more rapidly. Eight weeks from the time of the operation, the discharge growing quite thin, the wound was allowed to close. (We have not space for an outline of the other two cases. They all show the superiority of a free opening in cases of suppurative pleuritis over all other means of treatment. The improvement gained by tapping and by aspiration, is short-lived. Treatment by a free opening is curative.)

Reports of Societies.

Chicago Society of Physicians and Surgeons. *Transactions at Regular Meeting, Monday, Oct.* 12, 1874. Reported by RALPH E. STARKWEATHER, M.D.

Dr. Bartlett, President, in the chair. After the usual preliminaries. Dr. Steele read a paper, which was a report of a case of pneumatic aspiration of the pericardial sac, by Dr. Johnson, at the Cook County Hospital.

The following is a synopsis of the report:

The patient was a German laborer, forty-five years of age, and in good health previous to August last. Early in that month, while employed in a saloon, he went into an ice cellar, when sweating profusely, to cool off. Several slight chills followed, accompanied by severe cramping pains in back and left side, over the region of the heart. A deep inspiration aggravated the pain; there was no cough; appetite was impaired; bowels costive; breathing labored. At the end of a month, he had convalesced, and began work as a cook. He exposed himself again to sudden changes of temperature, and slept in a damp basement. Another attack similar to one above mentioned set in, with cough and expectoration of white frothy sputa, the breathing becoming more frequent and labored. Has been a moderate drinker for a number of years; family history

devoid of tuberculous taint; never had syphilis, nor rheumatism. Condition on admission, September 22, 1874: Patient is a large, well nourished man; decubitus on left side, shoulders elevated, thigh flexed on abdomen. The breathing is hurried and laborious; face anxious and cyanotic; skin cool and moist. Pulse 132, small, thready and irregular; respiration 28 to the minute; temperature, little less than normal.

PHYSICAL EXAMINATION.

Inspection.—There is a bulging of left chest and precordial region; epigastric protrusion; partial obliteration of left intercostal spaces, and decided loss of motion in left chest. Heart communicates no thoracic shock.

Palpation.—There is an absence of vocal fremitus in left chest, anteriorly, while, posteriorly, the fremitus is exaggerated.

Percussion.—There is complete dullness in left chest anteriorly over a somewhat irregular triangle, of which the base would correspond with a transverse line drawn from left axillary region three inches below left nipple, to a point two inches to right of the xiphoid appendix. The apex of the heart is at a point about five inches above, and one and a half inches to right of left nipple. The dullness was but slightly altered by postural changes.

In the right chest, the resonance was slightly increased.

Auscultation.—Below the third rib there was absence of all lung sounds of left lung. * * * * Posteriorly occasional fine crepitant rales, and friction sounds. In the cardiac region, there were no heart sounds. There were a few to and fro pericardial friction sounds.

The diagnosis was, acute pericarditis, with a large serous effusion.

The operation of pneumatic aspiration was done by Dr. H. A. Johnson. The patient being placed in a sitting posture, a fine canula, connected with a vacuum, was introduced into the fifth intercostal space, two inches to the left of the sternum, and carefully carried inwards, upwards and backwards, till it had penetrated the thoracic walls about two inches; a few drops of bloody serum escaped; about one ounce was removed, and the canula was withdrawn. Probably the canula entered a little pouch or pocket formed at the base of the pericardium by plastic lymph, and did not enter the main collection of fluid.

The immediate effect of the aspiration was to quicken and strengthen the circulation as determined by the radial pulse. The heart continued intermittent.

September 24. The patient felt better and could breathe more easily. Four days later a pleuro-pneumonia of the left chest set in, and increased the gravity of the symptoms. September 30. After a consultation of the attending physicians, it was determined to again perform aspiration as a *dernier resort.* A fine canula was introduced, near the point of previous puncture, in a similar direction and a little higher than before, till the point had passed into the chest about two inches, when on turning the stop cock the skillful operator was rewarded by seeing a full stream of bloody serum flowing from the pericardial sac into the receiving bottle. Eleven and one-half ounces were withdrawn, without the occurrence of a single unpleasant symptom.

The immediate effect of the operation was to relieve the turgescence of the superficial vessels, and steady and strengthen the heart's action; the breathing became easier, and the apex beat of the heart could be seen, for the first time, striking a little to the left and higher than normal; the cardiac sounds were distinctly heard. The bulging of the intercostal spaces was not so marked. Half an hour after the operation, the pulse was one hundred and thirty-two (132); respiration, twenty-eight (28) per minute.

October 1. Pneumonia more extensive, extremities cold; radial pulse imperceptible; general cyanosis; delirium and death 1 A.M., October 2d.

Dr. Steele then exhibited to the Society the heart of this patient, and demonstrated the points of entrance of the needle into the sac. He gave the following details of the post mortem examination made on the day of the death. The entire body was cyanotic—the pericardium was immensely distended by fluid, occupying nearly the whole anterior portion of the left chest, overlapping the right lung for two or three inches. Diaphragm depressed; moderate pleuritic effusion in both chests. On opening the sac, it was found much thickened and congested, and contained about one hundred ounces of bloody serum. The point of the second puncture was readily seen; that of the first puncture had closed by adhesive inflammation. The heart was hypertrophied, dilated, apparently inflamed; its right side distended with venous coagula; the entire

surface of the heart was covered by a tenacious coagulated lymph, arranged in segregated layers, varying in depth from one-half to one inch, so firmly adherent to the walls of the heart as to be with difficulty removed. The pericardium was adherent to the heart, around its base, by means of this plastic deposit. Left lung throughout was in the stage of red hepatization—quite friable, and firmly adherent to chest walls by recent pleuritic adhesions. The right lung was congested; kidneys healthy. * * * *

In commenting upon the case, Dr. Steele said that no heart sounds were heard till after the second tapping; but that the valves were probably not diseased; the heart itself was not weighed, but the weight of heart and its sac was probably four pounds. The patient when in health weighed one hundred and seventy pounds, and was five feet eleven inches in height. Before operating, the patient was advised fully as to the operation, and that it was only expected to give temporary relief; that in itself the operation was not curative. A needle, a little larger than the one used in a hypodermic syringe, was employed.

In reply to an inquiry by Dr. Merriman, it was stated that the patient had never had rheumatism, but had been a large healthy man, until three months ago.

Dr. Hamill expressed some doubts as to the advantage of aspiration, or its expediency. If there is absorption or removal of the fluid, may there not then be such adhesions as to hasten death?

Dr. F. H. Davis asked whether there was any effusion into the pleural cavities, and Dr. Steele said that there were twenty-five to thirty ounces in each cavity, the latter amount in the right chest.

Dr. F. H. Davis. It seems as though there might be one chief danger in this operation, the liability of the puncture to allow a dribbling of the fluid into the pleural sac, and produce a pleurisy or perhaps pneumonia; of course, the character of the fluid effused would determine this question—if it were purulent, the result might be different.

One of the members called attention to the fact that this patient, from the history given us, seems to have had a *primary* and *idiopathic pericarditis*, which is certainly very rare; at the time of death, it was not solitary, for there was double pleurisy and a pneumonia. In the morbid specimen, he saw no deposit of lymph upon the parietal serous surface; the cardiac portion of the sac

was everywhere thickly covered by the exudation. He then alluded to the gravity and rarity of the operation, and its success.

Dr. Hyde. So far as known, this operation is the first one ever done in Chicago, and must have required the courage if not the audacity which that other great physician (Trousseau) exhibited, who boldly plunged the needle into the pericardial fluid, long before Dieulafoy had established the present method and processes.

A discussion then ensued between Drs. Simon, Merriman and Hyde, as to the probable reason why the fluid that had been drawn off was bloody, and also as to the diseases men exhibit who follow the ice business.

Dr. F. H. Davis read several interesting reports of cases in his clinic. One was a case of nasal catarrh. Another a case of functional disturbance of the heart, due to nervous shock caused by a fall. A third case was one of congenital malposition of the heart and absence of the sternum in a young boy, with tubercles in the apex of either lung.

The President reported a case of cerebro spinal meningitis, which proved fatal, in which were numerous curious features simulating hydrophobia. The discussion of this subject, including rabies, was animated and exhaustive.

Dr. Hamill reported a case of abortion with retained placenta, in which he used full doses of ergot for twelve hours, without effect. He then exhibited the fluid extract of *actea racemosa*, forty drops every two hours; the secundines were expelled in six hours; the medicine seemed to act on the body of the uterus, producing tonic contractions. He preferred it rather than ergot. He had been called to the case two days after the abortion took place.

Several members related cases much resembling the one given with like experience, and expressed the opinion that the use of ergot in the third stage of parturition was, at least, very questionable, and inexpedient.

Dr. Merriman was appointed by the President to prepare a paper to be read at the next meeting, upon the management of the third stage of labor.

At a late hour the Society adjourned.

Transactions at Regular Meeting, October 26, 1874.

Dr. Bartlett, President, in the chair.

After the reading of the minutes of the previous meeting, the name of Dr. R. L. Leonard was favorably reported to the Society by the Board of Censors and received a unanimous election. The Society listened to the reading of a translation from the German, of Drs. Kundrat, of Vienna, and Englemann, of St. Louis, on the Microscopical Appearances of the Uterine Mucous Membrane, made and read by Dr. Von Mansfelde. At its conclusion, a vote of thanks was carried, but owing to the length of time occupied by the reading of the paper, upwards of two hours, its discussion was deferred.

Transactions at Regular Meeting, November 9, 1874.

Dr. Bartlett, President, in the chair.

After the usual preliminaries, a motion of suspension of the rules was carried, in order to receive a communication from a committee of the Chicago Medical Society in regard to a joint donation of money, in temporary support of the widow and young son of a physician who had died soon after the great calamity of 1871. The subject was referred to a committee, to report at the next meeting.

Dr. Etheridge, a member of the Section on Materia Medica and Therapeutics, presented a very full report, including translations and various interesting items from recent publications.

Attention was first called to the new Brazilian sudorific and sialagogue, *Jaborandi.*

This is a South American product; the leaves and small twigs are the parts of the plant used. The leaves have an odor and a bitter taste, but do not appear to have any alkaloids. Sixty to ninety grains of the leaves and twigs may be infused in a cup of water. "When taken, a drenching perspiration, or, more properly, sweating, lasting four or five hours, necessitating several changes of clothes, will follow. At the same time an abundant salivary and bronchial secretion supervenes, which may even exceed two pints in quantity."

The amyl hydride was exhibited to the Society, and was considered to be innocuous when applied to the skin or mucous mem-

branes. If swallowed, it is quickly converted into vapor. It is remarkable solvent. A solution containing one scruple of iodine to the ounce of amyl hydride is very simple, painless and effective when applied to bad smelling sores, ulcers, wounds, and to cancer. A very quick disinfectant.

Common oils, spermaceti, and other similar oily substances, make ready solutions in amyl hydride. Burns may be treated with success by using such a solution.

After explaining the mode of making the nitrite of amyl, and exhibiting a sample thereof, it was described as diminishing arterial blood tension, as though the vaso-motor nerve supply were paralyzed or cut off. It is a remedy indicated in all cases of cerebral anæmia; in epilepsy, when due to that cause. If employed for this purpose, it should be given at the commencement of the attack, by inhalation of three or four drops placed in a small vial. In syncope, hemicrania and chloroform narcosis, amyl has been of benefit.

A case reported by Dr. Jenks was cited, of puerperal eclampsia, successfully treated by the nitrite, before and after labor, administering two or three drops by inhalation.

Passing next to the subject of carbolic acid hypodermic injections, several cases lately reported were cited, in which results very surprising and satisfactory had been attained. In all forms of parenchymatous inflammation it is an active antiphlogistic. The insertion should be made where the lymphatics bring the acid in direct contact with the inflamed tissue. The strength should be two per cent. of pure acid, in water. A solution of one per cent., the injections being repeated four or six times, afforded relief in two cases of erysipelas.

Fissures in Ano, treated with Iodoform.—As a local anæsthetic, it allays the spasm of the sphincter during defecation, while it favors cicatrization by neutralizing the irritating effects of fæcal matters which may remain on the ulcerated surface. It is used as an ointment, one part to three of lard, applied (twice daily) on a small piece of charpie. Cure may be expected to follow within twenty days.

Bromide of Potassium.—This salt has been employed by Dr. Bernard, in Algeria, in the treatment of engorgements of the spleen, due to intermittent fever. Complete resolution may be secured,

the treatment being rarely prolonged beyond thirty days. Hypertrophies of the liver yield just as readily, or at least are very much improved. The dose of the bromide is fifteen grains daily, in one potion, in an infusion of orange leaves, etc., for fifteen to twenty days. In one case, however, during ten days, forty-five grains were given daily, in one potion, followed by cure.

An article by Dr. Chauppe, on "The Experimental Study of the Action of Ipecac," translated by Dr. Etheridge, was then read. It discussed the action of ipecac in arresting diarrhœa. At a former meeting an article upon its employment in phthisical sweats had been read.

No attempt will be made to give an abstract of this most valuable paper, partly on account of its length, but chiefly because the argument and details would be injured by being at all abbreviated.

Dr. Simons reported, verbally, a case of compound comminuted fracture of the right parietal bone, complicated by the protrusion of at least a half ounce of cerebral matter. The patient was a boy, of the age of three years. Half an ounce of the brain matter and a piece of bone one-half by three-fourths of an inch in size, were removed. The depressed bone was elevated; the lips of the scalp wound were united by sutures. At no time has there been loss of sense, sensation, intellection or motion. The boy is doing well, at the present time, four days after accident.

Dr. Hollister narrated a similar case that had occurred in his practice a number of years ago. The patient was a boy, twelve years of age, who had been kicked by a horse. There was a crucial fracture of the parietal bone near the frontal bone; the meninges were lacerated; the brain substance broken up, of which six drachms were lost. A piece of the parietal bone, one and one-half by one and three-fourths inches, was removed. The wound was closed, and compresses applied. Recovery was perfect. He never lost consciousness, nor was there failure of the mental powers. He was, however, pretty irritable in temper for a short time.

The motion to reconsider the vote adopting the report and resolutions offered at the last meeting, concerning the relations between physicians and pharmacists, was taken from the table, and, on motion, was laid upon the table indefinitely; thus sustaining the endorsement of them made by the previous meeting.

The Society then adjourned.

Hospitals.

Cook County Hospital. Surgical Clinics. October, 1874. Service of Prof. EDWIN POWELL. Reported by Dr. F. C. WINSLOW, Assistant Physician.

Popliteal Aneurism, (cured by digital compression in twenty-four hours.)

CASE 13,644. George M——; Frenchman; aged 38; painter; admitted October 7, 1874. The patient says he always enjoyed excellent health until five months ago, when he began to have a feeling of stiffness in the right leg and knee. While working, he spent a good deal of time standing upon ladders, or was frequently engaged carrying heavy weights up or down. When not busy, it was his custom to throw himself down upon the grass and sleep, thus exposing himself more or less to cold and damp. He continued his work—the stiffness gradually increasing—until about a month ago, when he felt a dull pain in the hollow of the knee. This was accompanied by a swelling a couple of inches in length, and about the size of an earth worm, in the right popliteal space. For the past month the swelling has steadily increased, and the enlargement has been particularly rapid during the past week, the pain, meanwhile, becoming more severe in character. He supposed he had rheumatism, and, in fact, has received liniments, ointments, pills, and kindred medications, at the hand of different doctors both for rheumatism and sprain of the knee.

He is a hearty looking, well nourished man. The appetite lately has been poor; bowels costive; complains of pain in none of the joints except the right knee, and there it is all referred to the popliteal space.

On examination, find an ovoidal tumor larger then a hen's egg, occupying the right popliteal space. It is elastic; pulsates freely in all directions; is smooth and sacculated; the skin glides freely over it, and the superficial veins are enlarged and turgescent. Auscultation reveals a harsh *bruit* all over the tumor, and up the artery as far as Poupart's ligament, while the pulsations of the tumor are entirely controlled by pressure upon the femoral artery.

Remarks. After giving a history of the case, the symptoms, diagnosis, prognosis, etc., concerning the treatment, the Prof.

said: It was formerly the practice in treating such tumors, to cut down into the sac, turn out the clots, and ligate the open mouths of the vessel to control the hemorrhage. Such a procedure was almost sure to be followed by a secondary hemorrhage, which proved fatal to the patient. Deligation of the artery on the cardiac side of the tumor generally resulted in a radical cure, but as there was always the possibility of violent inflammation, gangrene, or secondary hemorrhage, it was advisable to try milder means first. He then explained instrumental and digital compression, and the physiological cure effected by these methods. He spoke of forced flexion, and said that in the present case that method would be tried first, and in case it proved unsuccessful, digital compression would next be tried.

October 9. At 4 P. M. the leg was firmly flexed upon the thigh, and confined by a broad strap of adhesive plaster. The thigh was then gently flexed upon the abdomen, and the knee supported by pillows. At 6 P. M. this had become quite painful to him, and morph. sulph. gr. $\frac{1}{8}$ was administered. It was evident that he could not bear the flexion much longer, and accordingly nine men were selected to control the circulation of the femoral artery by making digital compression just below Poupart's ligament, each man to maintain pressure twenty minutes.

At 7 P. M. the compression was begun, the adhesive strap being removed, and the leg extended in an easy position. Pulse, at wrist, 66, and full. At 8 P. M., pulse 68; patient a little restless; morph. gr. $\frac{1}{8}$. At 9 P. M., pulse 72, and full. At 10 P. M. pulse 76; patient easy. At 11 P. M. pulse 76; pressure kept up continuously; he experiences no inconvenience. At 12 midnight, pulse 72, and good; complains a little of cramping; otherwise feels well; leg a little œdematous, and veins somewhat swollen; tumor has a firmer feeling.

October 10. At 12:30 A. M. morph. sulph. gr. $\frac{1}{8}$. At 1 A. M. pulse 72; complains a little of the pressure; tumor feels harder, and pulsations are obscure. There is numbness of the leg, and a decrease of temperature.

At 2 A. M. pulse 72; feels easy. At 3 A. M. pulse 78; comfortble. Sensation is gradually returning from above downwards, and is in exact proportion to the temperature. New vessels can be felt pulsating on the anterior aspect of the knee.

At 4 A. M. pulse 72; still comfortable. A single thickness of soft muslin is interposed between the fingers and the integument. Assistants observe that half the force required at first is now sufficient to control the circulation.

At 5 A. M. pulse 66; feels pretty well. At 6 A. M. pulse 66; patient has slept more or less the last three hours.

At 7 A. M. pulse 72. On removing the pressure only an obscure pulsation is felt at the seat of the tumor. At 10 A. M. pulse 80; very comfortable. At 12 noon, pulse 80; no pain or cramps. Takes beef tea freely. At 4 P. M. pulse 72; nothing can be heard with a stethoscope.

At 7 P. M. there is no pulsation in the tumor, nor does extension of the limb reveal the slightest vibration. Pressure is discontinued twenty-four hours and twenty minutes from its inception.

The patient is in excellent condition; has a little pain in the calf of the leg, and slight tenderness of the integument at Poupart's ligament. The limb is gently flexed, supported by a pillow, and left to itself.

October 11. Feels pretty well; some pain on extending the leg.

October 12. Comfortable.

October 17. Patient up and around the ward.

Thanks are due to Mr. Fredericks and Mr. Mallory, students at Rush Medical College, for assistance rendered in this case.

Double Fracture of Lower Jaw—Treatment of Chronic Ulcers—Bursa Patellæ—Adulterated Bismuth Subnitras—Necrosis Humerus—Injury to the Skull—Crushing Injury to the Lower Extremities—Retention of Urine.

I. Double Fracture of Lower Jaw.—The bone was broken on the right side, just anterior to the angle and on the left side, at a point midway between the angle and the symphysis, the fragment being displaced downwards and backwards. A loop of annealed iron wire was passed around the superior central incisor and the ends twisted together. The corresponding tooth in the lower jaw was treated in a similar manner, and by means of these loops the teeth were approximated, and retained in position by twisting the ends of the wire together. External support was afforded by means of a gutta percha splint, moulded to the chin,

and well padded, being confined by several turns of a roller under the jaw and over the vertex.

II. Treatment of Chronic Ulcers.—From half a dozen to a dozen and a half free incisions are made, extending from the edge of the ulcer outwards through the region of deficient circulation, marked by a bluish circle surrounding the ulcer, and down through the skin and cellular tissue. The operation is followed by immediate relief to the congested and constricted vessels, the discolored circle disappears and granulations spring up freely over the indolent surface.

III. Bursa Patellæ.—The bursa was punctured and the liquid evacuated. Pressure was maintained by placing a dry sponge over the bursa, and confining it in its place by a few turns of the roller. Afterward the sponge was moistened, and by its expansion kept up a steady and uniform pressure until the tumor disappeared.

IV. Adulterated Bism. Subnit.—The patient was suffering from an extensive burn of the leg. Bism. subnit. was dusted thickly over the open surface and covered with dry lint. In a few days symptoms of metallic poisoning exhibited themselves; the patient complaining of increased pain at the seat of the of the injury; a metallic taste in the mouth; a blue line being plainly visible upon the gums, and the cheeks were the seat of numerous small ulcers. The bismuth was tested and exhibited the presence of lead in large quantities. The dressing was immediately discontinued, and marked improvement in the condition of the patient followed the substitution of a dressing of simple cerate and the internal administration of potas. iodid. in doses of grs. x. three times daily.

V. Necrosis Humerus—Removal of Diseased Portion—Dressing, etc.—The case is that of a young man; a teamster. The affection came on spontaneously, a year ago. The arm is at present the seat of numerous sinuses leading down to the bone. An opening, six inches in length, was made on the outer aspect of the arm down to the humerus. Here a sort of a pocket was found containing a number of fragments already exfoliated. These were removed and the sides of the cavity scraped clean.

The wound was then packed with cotton, wet in a solution of ac. carbol. For the better cleansing of this cavity, the cotton is removed twice daily, and a stream of carbolated water directed upon the granulating surfaces, through the nozzle of a fountain syringe.

VI. Injury to the Skull—Continuous Cephalalgia—Cured by the Trephine.—The patient is a laborer who, while engaged in chopping down trees, was struck on the head by a falling limb. He was rendered temporarily insensible, but on recovering conciousness exhibited no paralysis, or other evidence of severe lesion. Since this time, however, he has been unable to work on account of constant pain in the head, less severe in the morning, but growing more marked in the evening, and at night, and greatly increased by stooping or lifting.

A well marked depression can be felt at the seat of the injury. A semicircular flap of integument was lifted from the bone, and the trephine applied. The dura mater was found roughened and thickened. No bad symptoms followed the operation, and for three weeks no pain has been experienced.

VII. Crushing Injury of the Lower Extremities—Double Amputation, etc.—The man was brakesman on a freight train, and was brought in with both feet crushed by the wheels of a car. In such cases the injury to the bones and soft parts is usually much greater than the external appearances would indicate, therefore it is always advisable to go at least six inches above the seat of the injury in order to preserve the integrity of the flaps.

Esmarch's bandage was applied, and the circular operation performed. The flaps were only closed at the upper half of the wound, leaving the rest open for free drainage. The stumps were lightly dressed with patent lint, moistened with water slightly carbolated. The subsequent progress of the case has been excellent.

VIII. Retention of Urine without Stricture, Owing to Enlargement of the Middle Lobe of the Prostate Gland.—The patient is an old man who is totally unable to empty the bladder. The ease with which a number twelve sound

passes into the bladder, excludes the presence of stricture, while with the finger in the rectum we fail to find sufficient hypertrophy of the entire prostate to cause retention. We therefore conclude that this is a case of retention caused by hypertrophy of the middle lobe of the prostate. This condition manifests itself by the presence of a small conical projection into the bladder, situated just behind the opening into the urethra. This body acts in the same manner as a valve, and by the constantly accumulating urine, is crowded down over the urethra, effectually preventing the emptying of the viscus.

The treatment of such a case consists in carefully instructing the patient to pass a catheter upon himself at regular intervals of six or seven hours. By this means, and by correct hygienic measures, the patient may often pass many years in comparative comfort.

SURGICAL CLINIC. Dr. POWELL. October 13. Reported by RALPH E. STARKWEATHER, M.D. *Popliteal Aneurism of the Right Leg—Treatment by Flexion—Treatment by Digital Compression, and cure in twenty-four hours.*

Remarks.—No particulars as to size or location of the tumors were given. The leg had been much swollen and the knee enlarged; the lateral expansion had been considerable; the pain had been constant and severe. The first method employed in this case was by flexion, the limb being strapped. This was continued three hours, morphine being given to lessen pain. The man was unable to endure the treatment. Pressure on the femoral artery by relays of assistants was then ordered, and continued uninterruptedly for twenty-four hours and twenty minutes.

There was not much change in the tumor for the first six hours of pressure; it then began to harden. The cure is complete. There is now no pulsation; the size of the knee is reduced one-third. The tumor is very hard—a mass of consolidated fibrine, which will disappear in from four to six months.

During the past three years I have had seven cases of aneurism, of which five have been treated by digital compression, successfully. It is a method free from danger, and one of comfort and relief to the patient. I have never had a perfect cure when treating by flexion, though in some cases it has been kept up seventy hours. In the treatment by ligature there is danger to a certain

extent, and you have a wound which may keep open three or four weeks.

Drawing horse-hairs through the sac, or small, fine wires, is another method of treatment; but in this there is danger of suppuration. If digital pressure were to fail, the galvano-cautery, or injection of ten to thirty drops of the liq. ferri persulphatis, might be effective.

Clinics.

Rush Medical College. Diseases of Brain and Nervous System, by Dr. WALTER HAY. Reported by HENRY L. HARRINGTON.

Case of Progressive Locomotor Ataxia.

Man, aged 45; laborer. States that he has been in the habit of working along the docks, and has been much exposed to cold and wet. Was well until about one year ago, when he began to have pricking and tingling sensations of the legs and feet, also sharp darting pains in the same limbs. He soon found it difficult to walk; could not control his movements; could not walk well in the dark; was unable to stoop over and wash his face without falling; felt all the time as if he was standing on pincushions; he has continued growing worse until the present time.

On examination, find patient well nourished; appetite good; bowels constipated; does not urinate easily; sleeps well. Patient is unable to stand with his eyes shut, and his feet close together; in walking extends his legs powerfully, but irregularly, and brings the foot down with a slapping motion, the heel striking first; keeps his eyes fixed constantly upon his feet when walking; all his motions are unsteady and irregular; when sitting down he can move his legs with ease in all directions; has lost no muscular power. There is anæsthesia of the soles of his feet; special sensation unimpaired; intellection good. He was ordered—R. Fluid ext. secale cornut. dr. j, at bedtime.

Remarks. This, gentlemen, is a disease which has its seat in the posterior columns of the spinal cord. It is essentially an inflammation of the connective tissue, resulting in hypertrophy

and induration of that tissue, and consequent atrophy of true nerve tissue, fibres and cells. The manifestations of the disease are due to the fact that impressions received by the peripheral nerves of sensation are not transmitted to the brain, but are intercepted in the posterior columns at the seat of disease. It is due to this fact that the patient is unable to co-ordinate muscular movements without keeping his eyes constantly fixed upon his limbs. Prognosis is grave; the progress of the disorder may be arrested for a time, but almost certainly returns, and progresses to a fatal issue. Its average duration is from two to five or ten years. The indications for treatment are to diminish the supply of blood to the cord, which is well fulfilled by ergot.

Two Cases of Chorea.

CASE I. Girl, aged 10. The mother states that she has suffered from irregular twitchings of the muscles for eighteen months. She has had great difficulty in eating, dropping or spilling whatever she was conveying to the mouth; cannot walk well; falls frequently; is very irritable, crying from slight causes.

On examination, find patient very anæmic and poorly nourished; skin cool; tongue pale; conjunctivæ pearly; appetite poor; bowels costive; sleeps poorly. The child cannot sit still; her hands and feet twitch irregularly; also the muscles of the face and eyes. Ordered—R. Ferri et quiniæ citratis, gr. ij, strychniæ sulph. gr. $\frac{1}{60}$, three times daily.

CASE II. Boy aged 7. Mother states that he was well until three weeks ago, when a window fell upon his hands, frightening him very badly. Ever since, he has been troubled with irregular involuntary motions of both arms and legs; has to be fed, as he drops his food; cannot walk well; appetite good; bowels regular; sleeps well. Patient is quite anæmic, though not emaciated. Ordered—R. Strychniæ sulph. gr. $\frac{1}{60}$, three times daily.

Remarks. These are examples of a disease which is due, in these as in most cases, to debility. There is an impoverished condition of the blood, and consequently deficient nutrition of nerve centres. As a result of this, there is an irregular supply of motor power, to which is due the irregularity of muscular contraction. The prognosis is favorable, usually, about three months being required to effect a cure.

The indications are to increase general nutrition. To accomplish this we give good diet, and tonics, such as iron and quinine; also strychnia, which is one of the best nerve tonics we possess. It aids materially in the management of these cases to have the patients practice rhythmical motions, such as would be necessary in jumping the rope, rolling the hoop, crocheting, etc.

RUSH MEDICAL COLLEGE CLINIC. DR. GUNN. September 12, 1874. Reported by RALPH E. STARKWEATHER, M.D.

Abscess in the Right Tibia.

This patient, a little girl of eight years of age, exhibits a rare form of disease, one of interest to the surgeon, namely, abscess of bone. It usually is very insidious in its onset, and not easily traced to any injury. There is, in the first place, great swelling; then pain, very severe and paroxysmal. This pain may be absent for months, and then return to torment the patient for days. Often the pain, more or less acute, will last for a year or longer, frequently being more distressing at night. The abscess may be greatly disproportioned in size and amount to the bone tumor and constitutional suffering; there may be a very small cavity, containing a few drops of pus.

As to the treatment, when there is evidence of pus, the only course is to open the bone and evacuate the pus, by incision or trephine. If there should be reason to suspect a syphilitic taint, you will do wisely to wait and exhibit the potassium iodide.

Hare Lip.

In this patient, a puny infant, the soft palate is fissured, but neither the bony arch nor upper lip is fully cleft In regard to operating, my rule is, when the child is strong and vigorous, and from four to six or eight months of age, to operate. Babies, as a rule, bear the loss of blood with great difficulty. In the case before you, I shall decline to interfere, because of the bad general condition of the baby. The operation should be done, in children, before they fall into bad habits of speech.

OCTOBER 10.

Amputation of the Right Thigh—Esmarch's Bloodless Method.

The limb was removed because of extensive caries of the whole of the tibia, the patient, a man fifty-three years of age, having

gradually emaciated from the excessive suppuration, continued through several years, till surgical relief became imperative. Dr. Gunn was assisted by Drs. Parkes, Owens, and Starkweather. The elastic bandage was applied very tightly below the point of discharge, but lightly over the wound, in order that no blood loaded with the partly decomposed material, might be crowded into the general circulation. Ether was administered by Dr. Parkes. The operation was by lateral flaps, at the middle of the thigh; the outer flap was first made, then the one on the left side. A roller quickly applied retracted the soft parts, and the femur was then sawn through.

Length of time of operation, fifty-five seconds. Less than two ounces of blood were lost. Three principal ligatures were made. Four sutures, on either side, were made, allowing the centre of the wound to remain patulous. Dr. Gunn said that this would facilitate the after management of the case. Formerly, the wound used to be closed up, and an attempt made to heal by first intention; but the failures were too numerous, and inflammation too constant, to warrant this being longer done. During the civil war, most of the cases at Nashville were lost by pyæmia on the second day after amputation, when the wound has been closed up. The practice was changed, and the wound allowed to gap wide open. A T-bandage and water dressings were the only dressing, and then the cases did well.

Selections.

Homicide—Suspected Simulation of Insanity. By I. Ray, M.D.

No matter connected with insanity makes a larger draft on the resources of the expert, than the task of deciding correctly in some cases of suspected simulation. This might naturally be expected where a sane person is performing his part with all the ingenuity and cunning which a life of criminal habits is apt to develop; but the difficulty is often none the less where the manifestations are very demonstrative and genuine; and the reason is, that however these may conflict with the results of one's own observations, no one profoundly impressed with a sense of the infinite diversity of nature, even in her wanderings, will be in

haste to conclude that they are, on that account, simulated. And the chances of reaching a correct conclusion are not increased by the disposition of the expert to forget that, in the very act of guarding against the deceptions of the patient, he is very apt to deceive himself. To add to his embarrassments, the opportunities for testing the mental condition may be very limited and quite unsuitable. A few interviews with the party in his cell, with such information as attendants may give, furnish, perhaps, the only materials with which he must construct his final opinion. That they are often insufficient to warrant any stronger conclusion than a guess, is precisely what might be expected, and the fact does no discredit to the sagacity of the expert. And yet this is not incompatible with the other fact, that under the surveillance of a Hospital for the Insane, the true character of a suspicious case cannot fail, at last, of being correctly understood by any one of considerable clinical experience and tolerable sagacity.

I have thought the following case worth relating, because it presents a rather unusual combination of traits, and, for that reason, may convey some useful hints to future observers.

In March, 1871, Michel Trimbur, with two or three other young men, was convicted, in one of the courts of Philadelphia, of a heinous outrage upon a young woman, and sentenced to fifteen years imprisonment in the Eastern penitentiary. He was of Irish parentage, about twenty-two years old, of rather small stature, and with a countenance indicative neither of stupidity nor ferocity. The crowded condition of the prison rendering it necessary, to some extent, to put two in a room, T. and one of his associates in crime were assigned to the same room, with their mutual consent and satisfaction. And up to the last, they seemed to be on the best of terms with each other. On the morning of the 7th of May, 1872, when tne keeper went to their cell with their breakfast, Michel said very quietly that Webb would not need any. On inquiry, Webb was found on the bed quite dead, with his head badly bruised. Michel immediately confessed that he killed him while lying in bed, with the board used for closing the ventilator. When asked how it happened, he said he rose early, and struck Webb on the head, several times, he making no resistance. When asked for his reasons, he admitted that they had had no quarrel, but said that Webb had frequently abused his (T.'s) mother, and he would not allow anybody to do that. Neither then nor subsequently did he express any sorrow for what he had done.

Previous to his trial for this second crime, his counsel requested me to ascertain his mental condition, as there was some reason for suspecting that T. was crazy. The officers of the prison where I went for this purpose, informed me that no indications of insanity, before the murder, had been noticed by any one, and that they first heard of it some time afterwards. On being asked what they had heard, I was told, that while passing from one part of the prison

to another, he looked upwards and said to the keeper, "O, what bright thing is that up there?" meaning the sun; and also, that having made considerable noise during the night, he was threatened with some privation if he persisted in it, and accordingly he became quiet from that night forth. The officers regarded these two manifestations as mere make-believe, and had no faith in his pretended insanity. During my first visit, which was over one hour long, we conversed about the circumstances of his two crimes, about his family, his education and employment, and about ordinary affairs and topics in which he might be supposed to be interested, and while he talked freely, without the least reluctance, not a word fell from his lips that could excite a suspicion of insanity. Though not particularly deficient in understanding, he had obviously received but little education, had no regular employment, and his social surroundings had been of a pretty low order. He gave the same account of the murder which he did at first, and without any sign of regret. Of the first offense, he then and always subsequently declared his innocence, and there was some reason to think, that in this he spoke the truth, his only offense being that of keeping bad company.

A few days afterwards, I made him another visit. For some fifteen minutes the conversation was very much like that of the previous visit. Then he rather suddenly went to the farther side of his cell, and took from a shelf a cheap card photograph of a child, or young girl, which he brought to me, his whole manner exhibiting a sort of earnestness which I had not observed before. This, he said, was his mother, the Virgin Mary, and forthwith he launched out into a stream of talk, consisting of wild, strange, incongruous notions, connected by no obvious bond of association. In this jumble of matter, in uttering which he needed no prompting, there was no repetition of words or phrases, and it was curious to see how a person who could not be supposed to have gained much command of language, could vary his modes of expressing such barren nonsense. The following specimen of his talk will give a better idea of it than any description possibly can:

"I give all of it to my mother. Neither is jealous, and she shall be my wife. I am going to be most a spirit. She needn't die for me and live as long as I live. She shall have as much to do with everything as I do. She is Mary the mother. I am her third husband—will give her my writings. Jesus Christ was two or three hundred when he died. He laid right down and died. Nothing comes into this world with stronger eyes than I have. I have got to die for that person—any strong person, Lazarus. I am Lazarus. I am to have the strongest eyes in the world, the best hair, the best of everything. Prettiest man that ever was born—made of the best stuff. Miss Wills was Moses' second wife. Mary, the mother of Jesus, is to be my wife."

In the course of the next two months I visited him twice, and

obtained only a repetition of the same sort of discourse and behavior; and these were the materials, in connection with the facts already mentioned, derived from the officers of the prison, out of which I was to form my opinion respecting the prisoner's mental condition; and the task was not an easy one.

Unquestionably, his exclamation about the sun was simulation. In no form of mental disease with which he could possibly have been affected, can we suppose such a lesion of the mental faculties as that would imply. He was not demented; he was not raving; he had no hallucinations; his perceptive powers were neither weakened nor perverted; and it was the only instance of the kind. This fact raised the suspicion of simulation in regard to all his crazy manifestations, some of which, certainly, were not calculated to remove that suspicion, though none were obviously incompatible with insanity. The entire correctness of his discourse in the first interview, the abruptness of the transition into a stream of wild and whirling words, and the peculiar character of the thoughts they conveyed, produced a first impression not very favorable to a conviction of his honesty. The last mentioned trait seemed indicative of a low grade of dementia more than any other form of insanity, and this seemed to be inconsistent with the clearness and vigor of the rest of his discourse. During my first visit, he was not aware of my function or purpose, but at my subsequent interviews, he knew, at least, that I was a physician. This fact, too, was a ground of suspicion, stronger to others, probably, than to myself. So far, then, the tendency of his manifestations favored the theory of simulation.

On the other hand, a mature consideration of all the circumstances of the case convinced me that they presented nothing incompatible, necessarily, with the existence of real insanity. Men who have been much conversant with the insane in hospitals—not meaning those whose knowledge consists in having *seen* many thousand patients—need not be told that sometimes, for one purpose or another, they make a show of being more crazy than they really are. They see what is going on around them, and, if not too much occupied with their own condition, they need only a little power of mimicry and a sufficient inducement, to imitate it. In one of our regular hospitals—many years ago, thank God—it was one of the customary performances for the entertainment of visitors, to show off a big, double-fisted, unkempt, unshorn patient, acting the role of the furious madman. And he did it, if not very correctly, yet well enough to excite the applause of the lookers-on.

Many insane do certain things as well as they ever did; they plan, contrive, anticipate, in furtherance of a special purpose. There is nothing strange or anomalous, therefore, in the fact of their endeavoring to act the madman; of course, in a phase of the disease different from that which they really exhibit. The criminal classes, to which most of these simulators belong, know, as well

as everybody else, that the plea of insanity is one of the dodges whereby people now seek to escape the punishment of their crimes, and they may not forget it, nor neglect to act accordingly, when they become insane themselves. It may seem, at first glance, a work of supererogation for a man obviously insane to endeavor to impress others with the belief that he is the subject of another and even a very different kind of insanity. The mystery vanishes when we consider that usually no insane person thinks himself to be insane, believing, as they do, with extraordinary tenacity, that the delusions they entertain are gospel truths; while the folly of their actions is strictly in accordance with the requirements of the occasion, and both the delusions and the folly indicative, as they think, of the soundest reason. For the purpose in view, therefore, the role of the simulator is as necessary to them as to others. Thus, Trimbur, being unconscious of his own real insanity, but with mind enough to understand his situation, and to remember what he had heard about insanity in connection with crime, concluded to make a show of being crazy.

I have said that the style of his discourse resembled that of dementia—a form of disease not to have been expected under the circumstances—and therefore suspicious. Unusual, such a phenomenon certainly is, but I am not prepared to say that it is conclusive proof of simulation. We must be cautious how we consider the experience of any individual in so vast a field as the aberrations of the human mind, as having comprised every form and shape which they can possibly take. The larger our experience, the more are we impressed with the infinite diversity of nature, even in the domain of mental pathology, and all, too, under the control of inflexible law. A closer observation of the prisoner might have revealed some connecting links between the sound and unsound trains of thought, which would have rendered the contrast less extraordinary.

Again, it was a very significant fact, in regard to his mental movements, that the perceptive faculties exhibited no aberration whatever, except the single instance first mentioned. Questions involving relations of time, space, distance, etc., were always correctly answered, and, indeed, in regard to all ordinary matters, clearly beyond the sphere of his wild notions, there was not a sign of derangement, real or pretended. Thus he abstained altogether from the dodge—if I may use the term in lieu of a better—which naturally presents itself to the simulator. His object is to make an impression, and he chooses, therefore, the strongest and least mistakable manifestations of disease—such as will be known at once to all men. He says, perhaps, that he is a hundred years old; that a place near by is a dozen miles off; that he knows not at all, persons with whom he has been intimate all his life; and, in short, he misrepresents the simplest matters of fact that happened under his observation. He may not show this trait in every par-

ticular, because he may be afraid of over-acting his part, and think his purpose better answered by holding up occasionally, but he will not entirely abstain from using the opportunity thus afforded for making an impression.

It must be borne in mind, that it is the simulator's purpose—the part he has undertaken to perform—to appear insane, and consequently he is careful not to appear sane, especially on occasions when his ends would be furthered by a successful imitation. He even lays plans for obtruding his mental disorder on the notice of the observer, though exercising all his ingenuity, perhaps, to conceal his design. It is not very likely, therefore, that Trimbur, if he had shrewdness enough to undertake the task of convincing others that he was actually insane, would have allowed our first interview to pass without the slightest attempt in that direction. He might not have suspected my purpose precisely, but he could scarcely have helped suspecting that I had some purpose. Accompanied, as I was, by the physician of the prison, by his keeper, and part of the time by one of the officers, it was an opportunity he would have been only too glad to use. Indeed, with the exceptions above mentioned, it did not appear that he exhibited any sign of insanity, simulated or otherwise, to any officer of the prison.

It is a circumstance also worth considering, that in his statements respecting the murder, when first discovered, and before he was likely to have formed any plan of simulation, he made no attempt to palliate the deed, as a sane man probably would. He never pretended that there was any sudden quarrel between him and his companion, that the latter provoked and assaulted him, and that he acted in self-defense. Calmly and quietly he declared that he killed him while lying in bed asleep, because he had abused his mother.

We are to bear in mind that, on any question of simulation, we are to take into the account the moral, intellectual and social character of the party. A skillful attempt implies some knowledge of men and things, some notions, however crude, about insanity, some power of mimicry, and great tenacity of purpose. Most simulators have picked up from books or personal observation, some ideas of how insane people act and talk; and sometimes a knowledge of their antecedents will show the particular model on which their imitation is founded. Now, no mortal could have been less qualified for acting the simulator of insanity than Trimbur. He was young, not very bright, with little education, his knowledge of the world was limited to a particular locality, abounding in the rough and rowdy element, and he probably had never seen an insane person in all his life. I found it difficult to believe that a person with such a record, could, by pure force of invention, achieve a jumble of thoughts so nearly resembling the utterances of the insane. And in recording them, as in the specimen above given, I found it impossible to follow him so rapidly

as to get the vague, broken, indistinct, half-uttered expressions marking the transitions from one definite thought to another, and of which only those familiar with the insane can have any adequate conception.

Here, then, were the reasons for and against the theory of deception, and had no attempt to deceive been made, as I was obliged to think there had, I should not have hesitated to believe him truly insane. As it was, they greatly preponderated, but so long as there was wanting that test furnished by a more close and continuous observation of discourse, deportment, manners, freaks and fancies, than is implied in an occasional, formal interview, when the person is controlled and restrained by the presence of a stranger, and if actually attempting to deceive, summons all his resources for the occasion—such an observation as he would undergo in the wards of a Hospital for the Insane—I was not ready to relinquish every doubt. However strong the presumption in favor of the prisoner, complete confidence was unwarranted, under the circumstances. And so on the trial, in September, 1872, I testified, that while the prisoner had every appearance of being insane, he might possibly be simulating, and that I had not had such opportunities for testing his mental condition as were needed for forming a certain conclusion. He was convicted of murder in the second degree, but his counsel applied for a new trial, which, after considerable delay, was granted. On the 14th of November, 1873, he was tried again, and acquitted, on the ground of insanity. The medical officers and others connected with the prison had become so strongly convinced of his insanity, that their opinion was readily accepted by the jury.

In May last, I visited Trimbur in the jail. He had grown more stout in body, and more stolid in look. The keepers told me he had been uniformly quiet and well behaved, and neither exalted nor depressed. He was as ready to talk as ever, and his talk was the same sort of jargon that I heard before. He spoke occasionally of the Virgin Mary, though less of her being his wife or mother, but his favorite topic was the excursions he frequently made into various parts of the city. Among those who came to his cell, at one time or another, and took him out, he mentioned General Washington, General Grant, Adam Sharp, Mr. Down, "or some one just as they are sent from Heaven or court. The Virgin Mary sometimes, because she is my aunt." When asked what he did when out, he replied that he kept a shop, and sold things, and again to the same question, he replied, "you must do something to help Philadelphia." Running on in his way, he said, "Those people are all mixed up, all help get the world in order. When they get arrested, I make it very easy for them, I would like to get out of prison. Most all of them is in use—the best of them. Most in prison don't get out." The indistinct utterances, the rambling undertones interspersed among the more

definite expressions, so characteristic of insanity, it is beyond my power to give. Again, about the middle of August, I visited T., and found no change in his manifestations. If stopped in the midst of his jargon, and asked how old he was, how many brothers and sisters he had, his mother's maiden name, how far it was from a certain locality to a certain other, the names of some old associates, the answers were correctly given.

About this time I first heard of an incident, which, had I known it in the beginning, might have removed my doubts respecting the true character of the case. It seems that a week or two before the murder, T. was visited by his mother, who came away greatly distressed, saying to one of the keepers, that her son talked very strangely, as he had never talked before, and she was afraid he was getting crazy.

The history of the case here related, justifies me, I think, in drawing the following conclusions, viz: first, that Trimbur is now, and was at the time of the homicide, really insane; secondly, that apprehending the consequences of the act, he concluded to simulate the disease, of which he was already the unconscious subject; and thirdly, that finding it produced no impression, or that his powers of deception were unequal to the task, he abandoned the attempt after one or two trials.

The above narrative furnishes a strong illustration of the difficulty of dealing with such cases in penitentiaries and jails. No one practically acquainted with the ways of the insane, need be told that such institutions furnish very inadequate opportunities for ascertaining the real mental condition of a prisoner suspected of feigning insanity. So far as it is confined to the manifestations during a special interview, he may escape detection, because he is fairly pitted against the expert, and the trial of his powers is very brief. In a hospital, on the contrary, he is observed much of the time, in every variety of circumstances, and liable at any time to be watched when he least suspects it. His manners, gestures, looks, habits, temper, conversation, may yield revelations more satisfactory than the wildest utterances; and the show of disease so well maintained by a careful and special effort, is constantly liable, under the influence of familiar circumstances, to slide into a natural deportment. For lack of any opportunity of this kind, I was obliged to withhold a positive opinion, notwithstanding my strong impression that I was dealing with a case of genuine insanity. As it happened, no harm was done, for the court, understanding the situation, purposely forbore to press the hearing for a new trial, the prisoner in the meantime becoming so obviously insane, that his acquittal was not resisted by the District Attorney. Every court, however, is not so considerate, and we can easily believe that in some parts of our country, Trimbur would have been summarily hanged.

It is highly desirable that the opportunity should always be fur-

nished somehow, for subjecting such cases to a kind of examination long enough and close enough to remove every doubt. Some of them, surely, might be satisfactorily investigated, even in the prisons, if the physicians attached to those institutions had some practical knowledge of the disease, and it were made their duty, as it never is now, to examine into their mental condition, for the purpose of giving an opinion on the trial. Why should it not be an indispensable qualification for the office, that they should be familiar enough with mental affections to entitle their opinions to some degree of respect?—*Am. Jour. of Insanity, Oct.* 1874.

Digitalis—Is it a Cardiac Sedative, or Cardiac Stimulant? By T. CURTIS SMITH, M.D., of Middleport, Ohio.

Digitalis has been prominently before the profession since 1775, at which time it was introduced by Dr. Withering, in a monograph treating of its value in dropsy. It has held a place in the British Pharmacy since 1721. It has, however, been believed to be by most early writers a cardiac sedative, and is still so considered by some writers, and many, or most of the profession, at the present day. To give a comparative statement of authorities as to its physiological effects and therapeutic value and applications, are the chief objects of this paper. We shall also add some of our own experience with the agent, in the treatment of diseases to which it seemed applicable.

Dr. Eberle, (*Therapeutics*, 1842) says: "I am entirely persuaded that its operation is immediately sedative; for it is certain that its stimulant effects, if it has any at all, are extremely feeble, and by no means proportionate to its ultimate sedative influence." "The fact of the sedative influence of digitalis (Ferriar) is so decisive that I do not hesitate to employ this term, notwithstanding the jargon with which the public has of late years been abused on the subject of sedatives." In the time when Ferriar wrote, there was great discord as to the properties of digitalis, as it was variously claimed to be a diuretic, a stimulant, or a sedative, while some claimed that it had "no properties at all."

Drake, Fowler, Beddoes, Mossman, Stefford, Magennis (loc. cit.), and others, extolled it as a remedy *par excellence* in pulmonary phthisis. This we now know to be untenable. All these writers believed in its cardiac sedative power.

Drs. Hill and Cox recommended it in mania, on account of its sedative effects.

Dr. Baildon (*Edinburg Med. Jour.*, vol. iii.) seems to have been the first to notice the variation of the pulse with different postures of the body. Thus, while standing, the pulse run at 110; while sitting, 70; while lying down, at 40. This effect was in his own

person, but also observed to be the case with other individuals. This difference, it was thought by him and others, accounted for the difference of opinion in different observers and experimenters, and especially for that of Saunders, who looked upon the agent as a cardiac stimulant, prior to 1830.

Dr. Geo. B. Wood (*Therapeutics*) believes the agent to be a local excitant, and that any temporary increase of the pulse is caused by sympathetic action from the local effects of the drug on the stomach, which is sometimes inflamed by too free use of it; but that its effect on the general system is that of a sedative to the nervous centres and to the circulation, the latter being under the control of the former. "The evidence (loc. cit.) of its primary influence upon the nervous centres, and through them on the heart, is afforded by the fact already stated, that if the par vagum be divided on both sides, it (digitalis) ceases to reduce the heart's action, and in moderate doses produces no effect at all."

He further states that with which nearly every writer agrees, viz: That it diminishes the frequency of the pulse. But contrary to the careful observation of others, who have conducted thorough physiological experiments with it, he denies that it increases the volume of the pulse or its tension. "On the contrary," he states, "the resistance under the fingers is generally, if not invariably, diminished in the normal state of the system; and if the influence of the medicine is increased, it may become extremely feeble."

Wood, in referring to the experiments of Traube, of Berlin, with digitalis, in which the pneumogastrics on both sides were divided, and in consequence of which the drug seemed to lose its effects over cardiac action, concludes from this that the influence it exerts is wholly through these nerves, seeming to forget what influence the cardiac ganglia of the sympathetic system has over the movements of the heart. Of this latter point we shall have more to say further on. The remarkable depressing effect which digitalis has over the sexual organs, Wood also refers to its (*London Medical Times and Gazette*, April, 1855,) sedative influence over the organic nerves. "The appearances after death (from digitalis, loc. cit.) are marks of inflammation in the stomach and bowels, dark and coagulable blood, and a *loss of contractibility in the heart.*" (Italics mine.)

This is directly contrary to the carefully-performed experiments of J. Milner Fothergill (Monograph on Digitalis, its Mode of Action and Uses—Hasting's prize essay for 1870), at least as far as the left side of the heart was concerned; for in animals poisoned by it, the left side of the heart was always found empty, and in a state of tonic contraction.

We shall have occasion to refer to these experiments further on.

Waring also adds his view of the sedative action of digitalis, also referring, as do all others, to its cumulative action in some cases, and to its diuretic powers.

Dr. Garrod thinks it a much better diuretic where a deficiency of urinary secretion depends on cardiac disease. This is probably true, as we shall soon try to explain. Waring (Therapeutics, 2nd Lond. Ed., 1866,) also states that if its sedative or diuretic effects are observed, the patient is free from danger of its cumulative power, in which opinion Dr. Munk (Guy's Hospital Reports, 1844,) concurs.

Notwithstanding the sedative action so strongly set forth by Waring (loc. cit.), he states as his fifth proposition that "it is chiefly applicable to diseases of an asthenic character, and in persons of shattered and debilitated constitutions." This to me seems strangely inconsistent; for patients who are "asthenic," and have shattered and debilitated constitutions, are not those to whom I would feel like administering powerful sedatives, but rather the reverse, unless for some special systemic conditions.

To add to this strange inconsistency, we will quote his seventh proposition, viz.: "In old persons, it is necessary carefully to watch the action of digitalis. It has been observed by Schonlein to produce, in some instances, not only an *alarming weakness, but a positive wasting and marasmus*, probably by acting on the nervous system and organs of digestion." Still he has just said it is best adapted to patients that are asthenic, and whose constitutions were in a shattered and debilitated condition. Certainly to make out both of the above propositions must require a mind able to twist and worm around direct contradictions that surpasses that of most men. We think that we shall be able to prove that it is best adapted to those cases where the central organ of circulation is affected with a disease that has weakened its action, and especially where that disease affects mostly the left side of the heart, and shall do so partly from those very authorities that hold it to be such a powerful cardiac sedative, either directly or through the nervous centres. For instance, Dr. Withering (1775), as quoted by Waring, observes: "That it seldom succeeds (in dropsy) in persons of great natural strength or plethoric habit, or in those with a tight and cordy pulse. If the belly in ascites be tense, hard, and circumscribed, or the limbs in anasarca solid and resisting, we have but little hope. On the contrary, *if the pulse is feeble and intermitting* [italics mine], the countenance pale, the lips vivid, the skin cold, the swollen belly soft and fluctuating, the anasarcous limbs pitting under pressure of the finger, we may expect the diuretic effects to follow in a kindly manner." To which Waring adds in comment: "Experience has fully proved the general justness of Withering's remarks." More of these citations hereafter.

Let us now turn to the investigations of J. Milner Fothergill, who, I think, has physiologically demonstrated, and by actual practical experience with the afflicted, proven that it is not a cardiac sedative, but a cardiac tonic of no mean consideration, and that its value in heart diseases, where that organ is weak and debilitated,

or doing overwork from some structural change or circulatory interference, is inestimable. The quotations taken from this author will be found in a very able prize essay written by him, viz.: Hasting's Prize Essay for 1870:

"Snails, when touched with the tincture or strong infusion, took a contractile spasm, threw off a coating of mucus, and passed on apparently unaffected." Earth-worms and wasps were not affected by it.

Fishes—"minnows"—that were poisoned with digitalis, in dying were "drawn to one side." "After death, the ventricle was found firmly contracted and glistening like a speck of gristle; and, on being examined by a microscope, no cavity was visible. The auricle was distended, and vainly tried to drive any blood into the tightly contracted ventricle, the blood merely regurgitating into the venous sinus behind, and then flowing back again from the venous distension, relieving itself on the auricle in diastole." When the venous sinus was pricked, so as to permit the escape of the blood contained in the auricle, it also contracted firmly, so that under the microscope no cavity was discernible.

Two sparrows were poisoned by the drug, and "on opening them immediately after death, the *left* ventricle in each was found firmly contracted; the lungs so congested as almost to be hepatized; the *right* ventricle full of blood. It was evident that the condition of the lungs and right ventricle was due to inability to drive the blood into the contracted left ventricle. The gorged condition of the lungs accounted for the gasping respiration observed."

Experiments on mammals by Hanfield Jones and Fuller, proved that a similar condition of the heart obtained after death from digitalis (loc. cit.)

In Fothergill's experiments on frogs, the left ventricle was uniformly found to be firmly contracted, with the left auricle and right ventricle distended, and lungs greatly congested, and his experiments confirmed those of many other able physiologists, as Dybkowsky, Pellikan, Hilton Fagge and Stevenson, of England.

All these experiments being performed with the heart in plain view, it was noticed that the number of contractions were first increased and then became slower, the dilatation or diastole of the left ventricle becoming less and less perfect, until it ceased in a firm and permanent contraction—systole. Other drugs, as belladonna, caffeine, strychnine and aconite, were experimented with. Under belladonna, the contraction of the left ventricle was quite but less distinct than under digitalis; caffeine still less so; while strychnine produced no perceptible effect on the heart; while with aconite the heart in death was arrested in diastole. This latter fact shows plainly the directly opposite effects on the heart of digitalis and aconite, and leads us unavoidably to inquire whether the one will or will not antidote the other in cases of poisonings.

On this point, Fothergill's experiments go to demonstrate (loc. cit., p. 6,) that while digitalis seems completely to counteract poisoning by aconite, that aconite has not such complete control over poisoning by digitalis, though it "certainly had an influence," but did not ultimately prevent the permanent contraction of the left ventricle, which causes the fatal result under poisonous doses of digitalis. I can scarcely do better than to give his own words with reference to the counteracting influence of digitalis over aconite. The reader will remember that these experiments were performed with the heart of the frog exposed to plain view. He says: "On the contrary, the administration of digitalis was followed by the most marked results when aconite had been given, and the ventricle had become gradually more and more distended, and its contractions more and more imperfect, each contraction merely expelling a small quantity of blood off the top of the distended ventricle, the contractions becoming slower and slower, and less and less perfect, until a condition of advanced dilatation had been artificially produced; and even when the heart seemed to have given up all action, and remained in diastole, distended with blood and inert, ... the first effect (of digitalis) was to produce an imperfect contraction at long invervals; then the intervals became shorter and the contractions more complete, some irregularity, both as to time and amount of contraction, being observed. Slowly and gradually, however, the distended ventricle recovered itself under the action of digitalis, the contractions being more rhythmical and perfect, and the distension less and less pronounced, until a return to normal contraction and distension was brought about."

Here, then, we have an antidote for aconite poisoning, which will render us valuable aid in accidents of this character. But care must be taken not to be too lavish in the use of the antidote, else we may poison the patient with it and cause his death with a contracted left ventricle, instead of permitting such an unhappy result by dilatation, under the poisonous effects of aconite. These experiments with digitalis were also confirmed by Brunton and Gamgee, both eminent observers. They also detected "a temporary murmur" (loc. cit., p. 7), "which was probably caused by imperfect closure of the mitral valve, through the imperfect action of the musculi papellares." The normal action of the heart is controlled by the pneumogastric nerve (from the organic system), and the cardiac ganglia of the sympathetic system. These, by nerve filaments, communicate with each other. The function of the pneumogastric, with reference to that portion which is distributed to the heart, seems to be to prevent too frequent or too rapid action and too great distension, and only admits the systolic action when the ventricle becomes sufficiently distended by blood being poured into it sufficiently to stimulate the heart to contraction. The cardiac ganglia of the sympathetic, on the other hand, tend to increase the number of contractions. When the pneumogastrics

are cut on both sides; the heart beats more rapidly than under the normal condition of these nerves. The heart, then, seems to be kept in normal action between these two balancing nerve powers. Digitalis evidently produces its influence over the heart secondarily, or through its action on the nerve centres controlling its action.

When the system is under the influence of digitalis, and the pneumogastrics are severed, the number of contractions are increased, but not to the same extent as when not influenced by the drug. It does not, therefore, act wholly and only on the vagus, as Traube and others have supposed. "There is no apparent connection between the giving of digitalis and section of the vagi, except an increase in arterial tension," (loc. cit.) Traube had supposed that the effect of the drug was produced by partially or completely paralyzing the vagi. But Hanfield Jones, Fuller, Neimeyer, Dybkowsky and Pellikan believe its effects to be exerted through stimulation of the cardiac ganglia, and that this stimulant effect manifests itself through increased muscular action in the heart, which is under their control. With this view Fothergill also sides, and says: "The action of the stimulated cardiac ganglia (under digitalis) is too much for the action of the vagus." Again, "The results, too, of the administration of digitalis after aconite poisoning had been established, would necessitate the theory of aconite acting as a stimulus to the fibres of the pneumogastric, if Traube's theory of the action of digitalis were true—a conclusion which is not warranted by what we know of aconite."

The action of this agent on the capillaries and arterioles is to produce an increase of their calibre, which effect still further refutes Traube's theory, as these vessels do not contract under an agent which produces a depressing effect, but dilate under such depression. This still further, also, proves that aconite depresses by nerve-sedative power, from the fact that dilatation of these vessels is very noticeable under its influence. This effect of aconite is still further confirmed by Dr. Brunton, London, in a paper recently read before the Medical Society of London, (*Medical and Surgical Reporter*, Aug. 8, 1874,) in which he commends it as our best antiphlogistic, short of venesection, and where control of the circulation is demanded without blood-letting being indicated, as is often the case in inflammatory diseases.

So much, then, for the physiological effects of digitalis upon the animal economy. The question next arises: Will these effects be proven by clinical experience? And to this we will next turn our attention; for this proof, if we can attain it, will confirm us in the views we have set forth, and place the drug in an entirely different light from that in which it has stood before the medical profession for the last century or more, and will give it a new and increased value as a therapeutic agent, with which we may be able more successfully to combat a class of diseases that have been, and still are, the opprobrium of the profession.

As we stated some pages back, we will prove, to some extent, by those who look upon this agent as a cardiac and nerve sedative, that it is not a sedative, but a cardiac stimulant and tonic, and that its value as a diuretic is based really upon the toning influence it has over the circulation, rather than that it has any specific effect as such, and we think we will, too, decidedly establish these facts by later authorities.

The belief that digitalis was a cardiac sedative, grew out of a mistaken pathology. In former times, it was believed that irregular actions and palpitations were due to or caused by "over-action of the heart," whereas we now know that they arise from a condition directly the reverse of that, and grow really out of cardiac deficiency, and that we are not now prepared to admit too great action of this organ resulting from disease of its own structure. What, you may ask, is the strong pulse of the hypertrophied heart but over-action? It is but a compensating growth to meet or overcome some obstacle, or to compensate for loss of power from dilatation of the ventricle. Fothergill says: "We can no more imagine a heart undergoing spontaneous, uncalled-for hypertrophy, than we can fancy a similar action going on in the bladder or bowel," or in any of the muscles of the body. Irregularity and palpitation are only evidences that the organ is being unduly taxed, and that whether hypertrophy exists or not—for if the two co-exist, it is evidence that the hypertrophy has not become great enough to meet the full demands of tension made on the heart by the amount of blood that passes through it. In these conditions, digitalis gives a slower and more regular action by giving tone to the weakened organ, and causing an approximation to the natural strength.

In this state of the heart, the same authority says: "Under digitalis, the pulse becomes steadier, firmer, and less compressible; the excited stroke of palpitation is steadied into the normal, quiet, effective contraction; the system is relieved; dyspnœa, the external evidence of pulmonary congestion, is abated; the *deficient secretion of urine*, (italics mine) which tells us that the pressure on the glomeruli of the malpighian bodies is lessened, is improved, and free secretion takes place; dropsy is thus often relieved."

In this we see a plain hint of the manner by which it brings about its diuretic power. It is observed that he also states that the pulse is firmer and less compressible under the influence of digitalis, which statement is directly opposite to that of Wood, (*Therapeutics*) viz.: that he had never noticed that it increased the force or tension of the pulse, which latter, also, accords with nearly all the statements of the old and some of the new writers on this subject. Fothergill adds to the above quotation the following: "The general condition of cyanosis is abated; there is evidence of a better circulation throughout the system generally. Frequently the gradually widening circle of troubles which are

involving the patient's existence, diminishes after an improvement is inaugurated in the circulation." All this he attributes to "the administration of a drug whose action is unquestionably to produce better, more complete ventricular action; and in that, and that only, I believe the magic lies," (loc. cit.)

In those cases, then, in which the heart is weak, attended by an ill feeling in that region, with anxiety, breathing more or less difficult and irregular, and readily increased by physical exertion or mental excitement, accompanied with palpitation or irregularity of the pulse, skin more or less cyanosed, we may expect beyond a reasonable doubt that digitalis will prove very greatly beneficial.

Drs. Munk, Hope, R. B. Todd, Boillard, Wood, and a host of old writers, speak in warning terms of its use in the above class of cases; while Hanfield Jones, Fuller, Sutton, Gull, Wilks, Sidney Ringer, Fothergill, Gascoigne (*Brit. Med. Jour.*, Aug., 1868), Edward Mackey (*Brit. Med. Jour.*, May, 1868), and many others of equal authority, speak of it in high terms as a heart tonic or stimulant; and commend it for all diseases affecting that organ, where it has its origin in debility of its muscular fibre.

Dr. Darwell, who believed in its sedative action, nevertheless recommends it, with iron, in dropsy, following scarlet and other debilitating fevers. Why thus commend it if it is a cardiac sedative in this class of cases?—for certainly the heart partakes very largely of the general debility of the system. Dr. Holland, of the same belief, strongly commends it in similar conditions. Wood, also, speaks in favorable terms of it in dilatation of the heart, associated with anemia (certainly a condition in which the heart is much weaker than normal), where there is excessive action, and in dropsies depending on deficient cardiac power, he commends it as a diuretic; apparently overlooking the fact that its diuretic influence is attained through the influence which digitalis has in toning the circulation, or he perhaps taking the opposite view. In any light, the above clinical facts given by these and many other men, do not correspond in result with their theory of the action of the drug, *i. e.*, as a sedative. If it is a sedative as powerful as is claimed by some, why did it not retain its reputation in inflammatory diseases, which we know it has completely lost, while its opposite, aconite, is fast gaining ground as a valuable and powerful means of combatting inflammatory action, as in acute pneumonia, pericarditis, etc., as testified to by Brunton, and others, after long experience with it at the bed-side?

Dr. E. Mackey (Prof. Materia Medica Queen's College), in reply to the question, May we expect digitalis to strengthen and make regular a feebly-beating heart, or must we dread its depressing pulsation to the verge of extinction?—says: "We may expect the former in a large number of cases."—*Compend. Med. Science* for July, 1868.

Dr. Gull clinically satisfied himself clearly "that digitalis was

capable of diminishing the frequency of the heart's beat, and increasing the power of the heart's impulse, and is especially useful in cases of disease of the left side, in which the action is very rapid and feeble," (loc. cit.)

Dr. Wilks remarks of a case of dilated, enfeebled heart: "This was just one of those cases where digitalis might be expected to do good," (loc. cit.)

Dr. Fuller states that "the cases of heart disease most benefited by digitalis have been those in which the heart has been weak and dilated, pulse feeble and irregular."

Professor Warren Stone says: "Digitalis is a distinct and strong stimulant to the muscles of the heart."—*New Orleans Journal of Medicine.*

Dr. Gascoigne speaks of it as being efficient by its "tonic action on the heart."—*British Medical Journal*, August, 1868.

Dr. Wiltshire speaks of it as an agent that increases the force of ventricular contraction, especially the left, and as giving force and volume to the pulse, while it diminishes the frequency.—*Compend. Med. Science.*

Dr. B. D. Taylor, of Bellevue, New York, (*N. Y. Med. Jour.*, November, 1870) says: "The tonic action of the drug (digitalis) is well known, but the present case shows its effect in restoring power and regularity almost instantaneously to a feeble heart."

Dr. Bohm, from repeated experiments, concludes that it strengthens the contractions of the heart.

M. Gourvat concludes that the involuntary muscular tissue of the heart is strengthened by it. The beats of the heart are "rendered stronger, slower and more regular by moderate doses."—*Med. and Surg. Reporter*, 1872.

Dr. Pepper says: "In cases that are suitable, the free, fearless and continued use of this drug will relieve the most alarming symptoms of failing circulation, prolong life sometimes for years, and afford incalculable comfort."—*Med. and Surg. Reporter*, vol. xxix., p. 400.

To the above, quotations from Grimshaw, Little, Ainstie, and others, could be given to add weight, but we presume enough testimony has been given to satisfy most readers on this point. Dr. Grimshaw, considering it one of our best heart tonics, as did also Dr. Little, both used it in low typhus, strictly with a view to this effect, and with happy results. The former used the infusion, so that its effects cannot in his cases be referred to the alcohol contained, as in the tincture.

Others in this and other countries have used it with more than ordinary success in delirium tremens, and in large doses (oz. ss. to oz. j). In this class of cases not only the voluntary, but the involuntary muscles have always suffered from long over-stimulation, and are, therefore, weak; and most of those who have thus used it, have done so with a direct view to its tonic and stim-

ulant effects on the heart. Dr. Jones, of Jersey, was, I believe, the first to bring this practice to the notice of the profession.

Numerous accounts of its value in this disease will be found in the *Compend. of Med. Science* and *American Jour. Med. Sciences*, to which the reader is respectfully referred.

My own experience is about as follows: For some years of the early part of my practice, I had been so firmly impressed with its dangerous cumulative powers, that I used it with so much caution that no perceptible effect was observed from it. But while I know that it is a powerful medicine, I have long since learned that these properties have been too greatly exaggerated, and that with care, it is as safe as any of our powerful medicines. I have also been led, from clinical observations, first induced by statements from good authority, from the opinion that it was a cardiac sedative to the direct reverse, viz.: That it is one of our best cardiac stimulants and tonics. Clinically, I have observed that those cases of palpitation, irregularity of pulse and dropsy, anasarca, dyspnœa, etc., which grow out of cardiac weakness, were formerly of great annoyance to me, and I often failed to give any more than very temporary relief. But now such cases under digitalis are generally relieved with as much certainty as an ordinary intermittent fever. It is sometimes almost wonderful to see the change which this agent effects by careful and persevering use.

In one case of dilatation of the left ventricle, in a man somewhat advanced in years, there was undoubted evidence of failure of the wall of the ventricle; the pulse became weak and intermittent; at every few beats the skin became gradually more livid; anasarca made its appearance; the respiration was also greatly interfered with, etc. He had been kept on tonics, with good hygienic regulations, and good diet, for months, but grew steadily worse, and the pulsations more irregular and feeble. I placed him on free doses of the infusion of digitalis, and after getting the heart reasonably under its influence, the dose was diminished to a half drachm, and continued twice a day, which quantity he continued to take for eighteen months. Soon after its commencement an evident improvement was observable. This continued gradually in his favor, till at the end of three months he was quite comfortable, but it was continued at least six months beyond the last vestige of any troublesome heart symptoms. At this time, now four years ago, a stronger or healthier old gentleman can hardly be found.

Numerous cases of feeble heart action could be here related, and of dropsies, pulmonary congestions, etc., growing out of feeble heart, which have been relieved by digitalis, but I presume it is needless here to prolong this paper in that manner.

We will next endeavor to point out that class of cases in which it is indicated, and its contraindications, and for the present leave this subject, feeling satisfied that we have endeavored to do our duty in demonstrating that *digitalis is a decided heart tonic*.

Indications.—In nearly all cases of feeble pulse from feeble heart.

In dilatation, with or without compensating hypertrophy.

In valvulur insufficiency.

In mitral obstruction.

In mitral regurgitation.

In aortic obstruction.

In aortic regurgitation *doubtfully.*

In degeneration of the cardiac walls it is indicated, but must be commenced with small doses, gradually increased, and closely watched.

In neurosal angina pectoris, not connected with serious structural degeneration.

In cardiac asthma or false angina pectoris it is valuable.

In cardiac asthma following or resulting from severe acute disease.

In shock it is valuable.

In palpitations not purely functional, it is not admissible, or is contraindicated.

In tricuspid regurgitation.

In tricuspid obstruction.

In greatly degenerated walls, or in great degeneration of the arterial coats.

In hypertrophy from plethora, with little observable dilatation, its use is questionable.

In most if not all functional disorders its value is questionable, except in cases of quite feeble pulse.

Its use as a diuretic is indicated where there is loss of tone in the circulation as a cause of the scant secretion of urine.

The modes of action as produced by digitalis are given by Fothergill as follows:

"The series of altered actions consequent upon increased contraction run in the following order or sequences; and it may be desirable for the sake of lucidity to arrange in a series of propositions, each depending on the one before, like a logical syllogism. The effects of increased contraction are, then:

"1. Increased arterial distension and tension, which give rise to the systemic symptoms, and further cause

"2. Increased arterial recoil. This is the propelling power for the coronary arteries; and thus arterial recoil means—

"3. Increased or improved coronary circulation; and that, in turn, produces

"4. Increased nutrition of the heart, which results in

"5. Compensatory hypertrophy. In connection with these, we have also to consider—

"6. Atheroma and fatty degeneration of the heart fibres."

These propositions by their study show that digitalis follows the line which nature indicates by her attempts to restore or regulate

the circulation of the system in heart diseases. So long as these indications are closely followed in its use, they will prove of the greatest value to the subjects of cardiac disease.—*Southern Medical Record.*

Editors' Book Table.

[NOTE.—All works reviewed in the columns of the CHICAGO MEDICAL JOURNAL may be found in the extensive stock of W. B. KEEN, COOKE & CO., whose catalogue of Medical Books will be sent to any address upon request.]

The Chicago Medical Register and Directory for 1874–5, published under the direction and supervision of the Medico-Historical Society, has just made its appearance, and we are sorry to say, fully demonstrates the unfortunate results of the errors of organization committed by the Society, and indicated specifically in the JOURNAL, in June last. We are utterly unable to perceive in what respect this Directory differs from—so far as its special contents are concerned—or is in any manner superior to the City Directory. It is furnished, indeed, at a smaller cost, but the amount of information contained in it is smaller, and the price seems to be apportioned to the bulk rather than to the character of the contents.

The publication of this book, under such auspices, must prove a source of deep regret to all who seriously desire the elevation of the standard of their profession. The Chicago Medico-Historical Society, as a body, has done its best, the best of which a body so organized was capable; from it nothing better could be expected; from the large number of medical gentlemen of intelligence and high standing, who constitute an integral portion of the society, much more was to be expected; they were expected to display an amount of moral force to resist outside pressure far greater than could be exercised by individuals in editing a work of this character.

Unfortunately for the profession, the work itself is a standing testimonial to their misguided charity (?) and bad judgment. They have sacrificed their profession to the selfish aims of individuals, and have assumed responsibilities whose weight will

press heavily upon them hereafter. The initial division of the work is entitled "Physicians in Chicago who are in good and regular standing, according to the Code of Ethics of the American Medical Association," which title is further elaborated by an explanatory "Resolution adopted by the Chicago Medico-Historical Society, August 2nd, 1874;" and is followed by an alphabetical list of, quasi, exponents of the text, remarkable, first, for its admissions; secondly, for its omissions; thirdly, for its gross injustice in admitting some and omitting others belonging strictly to the same class; and lastly, for the utter incongruity between text and exposition.

To sustain this criticism, there is ample evidence; it would not even be necessary to go outside of the membership of the Society for witnesses to prove its truth and justice.

But passing by the unjust discrimination which has been exercised toward those hitherto considered of doubtful, or even decidedly bad, repute, we will venture to suggest that Hospitals and their care and management, and the indication of their programmes of medical service, are quite as much within the comprehension of a Medical Directory as are Life Insurance Companies; and that the publication of a physician's hours of attendance upon the latter—for which he is compensated—and the refusal to publish those, upon the former—which are gratuitous—is a distinction more nice than wise, in view of possible suspicions which the maliciously disposed might, unjustly, entertain.

The book is the index of a retrograde movement in professional ethics, to use no harsher but perhaps more appropriate language—a triumph of radicalism over conservatism; from the consequences of which, recovery will be difficult and tedious.

We have no intention nor desire to impugn the motives of the gentlemen to whom we have referred, as constituting a majority of the Society; but must frankly say that their course has been marked by weakness and bad judgment from the beginning to the end, the results of which can only be demoralizing in their tendency.

It is of course unnecessary to commend the work of the Editor and Publishers, which would commend itself sufficiently, were it not amply assured, in advance, by the names of the gentlemen in charge of those duties respectively. H.

Infant Diet. By A. JACOBI, M.D., Clinical Professor of Diseases of Children, College of Physicians and Surgeons, New York. Revised, enlarged, and adapted to popular use by MARY PUTNAM JACOBI, M.D. New York: G. P. Putnam's Sons. 1874.

The author, or authors, of this little volume, while admitting at the outset that the milk of the mother is the best food for the child, appear to make the admission under a mental protest, in view of the many examples of women who have assumed the duties and responsibilities of maternity, although unfitted therefor, by reason of imperfect, or diseased, physical organization.

A large portion of the work consists of an excellent resume of the physiology of digestion, and the chemico vital relations of infant food; followed by descriptions of some of the pathological conditions resulting from the imperfect performance of this function. This portion of the work is unobjectionable. To some of the conclusions to which the authors have arrived, in their general summary, we must beg leave to differ very respectfully with even so high an authority as Dr. Jacobi.

We can perceive no authority in physiology which sanctions, but abundant authority in practical experience which condemns, the administration of farinaceous food to infants—food which these authors regard as essentially valuable; nor can we consider the addition of brandy and whisky to the dietary list of such young subjects, otherwise than as a practice fraught with probable, almost certain, danger to the delicate nerve structure of the infant. In this relation, we refer, of couse, as do the authors, to children in a normal condition; in morbid conditions, the indications must be appropriately met. But that an infant "in very hot weather," even "in the hottest days only," should have a teaspoonful of whisky daily with its food and water, is a plan which might be safely conducted under such experienced observation as that of the author, but which, in the majority of cases, could only result disastrously. H.

Electro-Therapeutics: A Condensed Manual of Medical Electricity. By D. F. LINCOLN, M.D., Physician to the Department of Diseases of the Nervous System, Boston Dispensary. Philadelphia: Henry C. Lea. 1874.

Until electricians shall have reduced the phenomena with which

they are concerned under some general laws, which shall be based upon fixed principles, and shall have applied thereto a system of nomenclature which shall possess the merit of philological harmony, the study of the science of electro-therapeutics will continue to be a "vanity and vexation of spirit" to all save expert physicists. Just so long as such terms as "force" and "fluid," "force" and "cause," "current" and "intensity," are used synonymously, the science, to whose gateways these terms are the pass words, must ever remain a terra incognita to the medical student.

Dr. Lincoln's little book is one of the best manuals upon the subject which has appeared, and to those engaged in the study of electro-therapeutics, it will be found useful and instructive. It is a praiseworthy effort to reduce order out of chaos, and we have no fault to find with the effort, but must still regret the chaotic condition of the science itself, which defies the efforts of ordinary readers to comprehend it. H.

Clinical Lectures on Various Important Diseases; being a collection of the Clinical Lectures delivered in the Medical Wards of the Mercy Hospital, Chicago. By NATHAN S. DAVIS, A.M., M.D., Professor of Principles and Practice of Medicine, and of Clinical Medicine, in Chicago Medical College. Edited by FRANK H. DAVIS, M.D. Second Edition. Philadelphia: Henry C. Lea. 1874.

The first edition of this little work was so fully noticed in the JOURNAL, that it is only necessary for us to refer to this as exhibiting evidences of revision, and marks of improvement over its predecessor, which appears to have met the wants of a large class of readers, if the rapid demand for a second edition may be assumed as an indication of their appreciation of its value, and of the author's popularity, while its contents and style are exponents of his skill, method and culture, as physician, teacher and scholar.

H.

Ligation of Arteries. By Dr. L. H. FARABŒUF, Aide D'Anatomie a la Faculte, Ancien Interne des Hopitaux de Paris. Translated by JOHN D. JACKSON, M.D., of Danville, Kentucky. With engravings. Philadelphia: J. B. Lippincott & Co. 1874.

"An operative manual," and an excellent specimen of that most excellent class of books at this time coming so prominently

into notice, and supplying to the general practitioner what was omitted to a great extent in his curriculum of undergraduate studies, and what he fails to find in necessary detail in his standard text-books. The book is divided into two parts, of which the first, comprising three chapters, treats of principles, or, what the author terms generalities, *i. e.*, the "discovery of the sheath of an artery," the isolation of the vessel, and its ligation. This little book is by no means a treatise on the "art of surgery made easy" for ignorant pretenders, for the author insists at the outset, upon a competent knowledge of anatomy, and addresses his subsequent instructions to those who possess that prerequisite. Amongst the preliminary steps to the study of the ligation of an artery, the author advises that its track be carefully traced upon the skin, and suggests the best material for this purpose, *i. e.*, "tincture of iodine." After this follow most minute practical directions for holding the bistoury for making the incision, and for the discovery of the sheath, all of which occupy an entire article. The method of accomplishing the isolation of the vessels both with the bistoury and director, are amply detailed in the second article, while the third is devoted to the subject of ligation proper, both of arteries in their continuity and of those cut transversely. A chapter is also devoted to the means of obliterating arteries besides the ligature, the author's preference being decidedly for the latter.

The second, and by far the larger, portion of the book is devoted to the subject of special ligations of the vessels of the upper and lower aortic system. The anatomical and surgical directions are minute and clear. The illustrations are excellent and original.

Taking the book as a whole, it will be difficult to find a more complete and useful manual upon any subject, and in its peculiar department we know of none comparable with it. H.

Surgical Emergencies, Together with the Emergencies Attendant on Parturition, and the Treatment of Poisoning. A Manual for the use of General Practitioners. By WILLIAM PAUL SWAIN, F.R.C.S., Surgeon to the Royal Albert Hospital, Devonport. With eighty-two illustrations. Philadelphia: Lindsay & Blakiston. 1874.

One of the most useful little books which has issued from the medical press during the current year. "It is intended to," and

does, "supply a wide-spread want," "viz., a small book containing directions for the immediate treatment of all those various emergencies with which the general practitioner may be called to deal at any moment." The contents of the book are comprised in twelve chapters, and are illustrated freely and fully. The style in which the book is written, deserves the highest commendation, as one less concise would have been inadequate to the comprehension of such a "multum in parvo." We will venture to suggest an addition to the treatment of epistaxis contained in the first chapter, *i.e.*, compression of the facial arteries upon the jaw, the efficacy of which in arresting this hæmorrhage has been demonstrated so frequently. H.

Physicians' Visiting Lists for 1875.

The pioneers in the publication of these little books, Messrs. Lindsay & Blakiston, are, as usual, first in the field with their issue. They can truthfully claim the propriety of the criticism, "a book which no physician can afford to do without," one which every physician reads, yes, studies, daily, even if he reads no other, and which to many is "the most interesting work ever issued from the medical press." H.

The Nature of Gunshot Wounds of the Abdomen, and their Treatment: based on a review of the case of the late James Fisk, Jr., in its medico-legal aspects. By EUGENE PEUGNET, M.D., Surgeon to the North-Western Dispensary; Member of the New York Pathological Society, etc., etc. New York: William Wood & Co. 1874.

The object of the publication of this monograph, as set forth in the author's preface, was to demonstrate "the necessity of a change in the manner of conducting criminal investigations and in the introduction of expert testimony." The case of Fisk, of which the history is comprised in the first chapter, is made the text for the argument which comprehends four points: 1. "The description of shock;" 2. "Penetrating gunshot wounds of the abdomen;" 3. "The physiological and toxical action of morphine;" 4. "The medical jurisprudence of the Stokes case."

Dr. Peugnet in his little monograph proves himself an expert in medical jurisprudence, no less than in physiology. He appears to have detected, with remarkable clearness, the weak points in the

management of the case, both of the prosecution and defense, and his physiological analysis of the symptoms of the patient, under the varying conditions, which characterized the brief period intervening between the assault and his death, is most elaborate, learned and convincing. Beginning the examination of Dr. Peugnet's work with a decided prejudice against his conclusion, based upon inferences drawn from the published testimony in the case of Fisk, believing fully that the theory of morphine poisoning was merely an ingenious ruse devised by the counsel for the defense to divert the attention of the jury from the direct evidence of murder in the case, we have finished its examination with our prejudices removed by the light of additional evidence, and the author's brilliant physiological arguments.

While, however, the arguments of the author are convincing in support of the theory of opium poisoning—and it cannot be reasonably doubted that the immediate cause of the death of Fisk was the morphine administered after the reception of his wounds—it must still be also maintained that it cannot be reasonably doubted that he would have died from the wounds received, had no morphine been given, and that the defendant was guilty morally, if not technically, of murder in the first degree; this point, however, is beyond our province to discuss. H.

The Philosophy of Spiritualism and the Pathology and Treatment of Mediomania. Two Lectures by FREDERIC R. MARVIN, M.D., Professor of Psychological Medicine and Medical Jurisprudence in the New York Free Medical College for Women. Read before the New York Liberal Club, March 20, 27, 1874. New York: Asa H. Butts & Co., publishers. 1874.

The author of these lectures at the outset states his propositions most clearly, and boldly throws down the gauntlet of defiance to the defenders of spiritualism—whose philosophy he assumes to analyze—in these words: "I reject all forms of materialism, and among them spiritualism." Commencing with a denunciation of spiritualism as the "materialism of materialism," he proceeds to the argument of his lecture, and endeavors to show "that the soul cannot be material substance." The first step in his argument being the demolition of "the rhetorical nebulosities" of spiritualism as expounded by Andrew Jackson Davis and Judge Edmonds, *i. e.*:

1. That man is composed of three substances, body, spirit, and soul.

2. That the soul is the body of the spirit, and the visible body the body of the soul.

3. That the soul is a result of physical organization.

4. That within the physical man there is a spiritual man, corresponding in form and size with its fleshy exterior.

5. That spirit possesses the properties of matter.

Of which our author says, very justly, "if this is not materialism there is no such thing as materialism."

Of the spiritualistic manifestations, so-called, the author protests against their relegation to the domain of the supernatural, and insists that observers await patiently the development of scientific principles which may underlie them, believing that the delay will not be long, "for it is already clear that much, if not most of the 'spiritual phenomena' are the results of deliberate imposture, pitiable credulity or grievous disease."

Dr. Marvin has a logical mind, and exhibits evidences of study and culture in his special department; it is to be regretted that the scope of his studies has been restricted in other directions, and that in consequence he should have given utterance to language for which ignorance is no palliation, *i. e.*, "in mediæval times they (men) worshiped crucifixes, pictures of the Madonna, and strings of beads." Where is the evidence of this to be found except in the false assertion of persons as ignorant as himself on this subject? And further, the assertions that the "lives of saints, priests (whom he classes with ecstatics and media) are so many records of sexual derangement," that "St. Theresa and St. Catherine of Sienna were nymphomaniacs;" are utterances unworthy of a Christian gentleman, which, by courtesy, we assume the author to be, and grossly insulting to the intelligence of two hundred millions of human beings whose faith, that of those whom he so foully maligns, is to-day the only substantial bulwark against the encroachments of the very delusions which he so vigorously assails, and of whom some few, at least, are his peers in intellectual capacity, in logical acumen, and in purity of life.

It is to be regretted that the author's proclivity to dogmatize should so frequently manifest itself, and essentially impair the usefulness of a book, which, had its spirit been more comprehen-

sive and its tone broader, would have served to throw much light upon the subject matter of which it treats. While all must admit the very great influence of derangements of the sexual function in the development of insanity, few, we think, will endorse the author's dogma—"Tilt the organ (the uterus) a little forward—introvert it, and immediately the patient forsakes her home, embraces some strange and ultra ism—Mormonism, Mesmerism, Fourierism, Socialism, oftener Spiritualism;" and further, "Allow the disorder to advance, and it becomes a chronic malady, and alas! the once intelligent, cultivated and pure woman sinks, through a series of strange isms and remarkable affinities, until she reaches the despicable level of the *demi-monde*."

To the initial propositions of the book, notwithstanding their dogmatism, we most heartily subscribe, and regret that they have not been sustained with the force and perspicacity of which they were susceptible, inasmuch as they were advanced and maintained with the good intent to rescue the human mind from the terrible delusion spiritualism, with which intent we most heartily sympathize. But we cannot endorse the almost exclusive ascription of this deplorable mental condition, rightly termed insanity by the author, to sexual derangement.

The book is on the whole well worth reading, containing much that is interesting; its faults being the necessary results of hasty generalization from insufficient data. H.

Manual of Eye Surgery. By A. J. Howe, A.M., M.D., Author of a Treatise on Fractures and Dislocations, and Professor of Surgery in the Eclectic Medical Institute, Cincinnati. Printed by Wilstach, Baldwin & Co. 1874.

The careful reader, after opening this book, will be struck with the peculiar reasons advanced in the beginning of the preface, by the author, for its compilation: "I found the ground well covered with elaborate treatises," and later, "the general practitioner was left without a work adapted particularly to his wants." On the next page the same general practitioner "is presumed to have a lexicon to which he can refer for the definition of rare and complicated terms," and he is further assured that "the learner obtains more information from a definition found in the dictionary than at first sight might be supposed," and exhorted not to be "discouraged with the array of 'hard' words."

After such a preface the reader, at all doubtful of his philological attainments, commences an inspection of the book with some trepidation, and closer study of its therapeusis suggests the reference of a certain expert, to a "bushel of spoiled eyes." One of the chief merits of the book, as of wit, is its brevity—and the reader is tempted to add to the "Finis" the old couplet: H.

"Since so early I was done for,
I wonder what I was begun for."

Erysipelas and Child-Bed Fever. By THOMAS C. MINOR, M.D. Cincinnati: Robert Clarke & Co. 1874.

Multum in parvo. In this little volume Dr. Minor has attempted to show the intimate relations between the two diseases which constitute the title to his little volume, and although we cannot speak upon this subject from an unprejudiced standpoint, having long since arrived at the same conclusions, we feel sure that an attentive study of the author's data and reasoning will force any candid mind to adopt his conclusions.

His studies of the correspondence in the climatic relations of the two diseases are replete with interest, and his conclusions deduced from these we have been able personally to verify during a residence of some years in the extreme South, where the immunity from the two diseases was most striking when compared with the fatality resulting from both in this locality.

The precautions recommended as necessary to those engaged largely in obstetrical practice, in order to avoid all risk of contagion, are wise and prudent, and thoroughly justified by the mortality observed where these precautions have been neglected.

H.

Address delivered before the American Academy of Dental Science, at their Third Annual Meeting, held in Boston, September 20, 1874. By Dr. W. W. ALLPORT, of Chicago. Published by vote of the Academy.

Dr. Allport is too well known, by the majority of readers of the JOURNAL, to require introduction. The present address is a thoughtful *resume* of the relations between the merely mechanical and scientific or higher professional branches of what is popularly denominated Dentistry. In it is very clearly shown that between the simple making of artificial teeth, plates, etc., and the diagnosis, prophylaxis and treatment of dental diseases, there is as broad a

distinction as that existing between the surgeon and the maker of splints and surgical cutlery; or as that between the physician and the nurse, electrician, bather, cupper and bleeder of old time.

In his opinion, Mechanical Dentistry should be remitted to the artisans, whilst Dental Surgery and Practice should be recognized as really a specialty of medical and surgical practice.

Perhaps this may appear, at first blush, as a matter of little import, but on reflection it will be seen to involve important practical results.

Prominently this: Dental colleges, as separate organizations, are unnecessary. The scientific dentist requires all the elementary teaching given, ordinarily, in the medical colleges, just as does the oculist, the dermatologist, or any other specialist. Dental pathology and practice may be taught by an additional chair in any medical college, remitting, as before stated, manipulations to the dental mechanic.

Our space forbids any considerable extracts from this valuable *brochure*, but to bring the practical suggestion fully before the colleges and the profession, we append the closing paragraphs of the address, with our full endorsement: A.

Let dental mechanics be otherwise taught, as a high mechanical art, and the calling fixed in the mind of the public as such, and, in a few years, a patient would as soon go to the maker of artificial legs for advice or treatment, in conservative surgery, or regarding amputation, as to the *dentician*, or *dentificier*, for advice or services in the saving of his natural teeth, or their extraction.

To drop the teaching of mechanical dentistry in private offices and in our colleges, would, in a few years, permanently divide the practice, and very soon each town of any considerable size, would have one or more of these practitioners, who, relying entirely upon success in this calling for support, and becoming personally responsible for what they did, would seek to redeem and elevate this particular art to the highest degree attainable, thereby enhancing the respectability and usefulness of their calling. And the *dentologist* would, by the broad and comprehensive teachings of medicine, become more thoroughly grounded in its science, and be better qualified to take his rank with the other medically recognized specialists. With this thorough groundwork laid, he would not only be better prepared to treat from a medical standpoint the diseases belonging to his province, but also to grapple successfully, by general treatment, with those hidden and hitherto illy understood influences which serve to prevent perfect dental development, and also to counteract those pathological conditions which act as causes of disease in the teeth and tend to break down their tissues.

With the development of this higher mission of our profession, there will be no occasion for the spectacle of dentology, with the grimace and shuffle of the mendicant, approaching the gates of the medical profession, and with downcast eyes, begging a crumb of recognition. But with the accomplished separation of the two callings, heretofore combined in our practice, dentology, enriched by the experience and the special literature of the last half century, and the foundation of its practice laid exclusively in the science of medicine, rather than

divided between that and a trade, the incongruity of the past will, in a few years, disappear, and by deriving its nourishment from the body of which it is a branch, it will become more and still more assimilated to the science and the practice of medicine, and without demand, there will, both by the public and the medical faculty, be accorded, not to individual practitioners, but to the branch, a full and cordial recognition as a specialty in medicine, which will attract more generally to its ranks, as to an agreeable and useful field of labor, men of earnestness, ability and culture, the peers of any in an honorable profession.

BOOKS RECEIVED.

Report of the Chicago Relief and Aid Society, of Disbursements of Contributions for the Sufferers of the Chicago Fire. Printed for the Chicago Relief and Aid Society at the Riverside Press. 1874.

Therapeutics and Materia Medica; A Systematic Treatise on the Action and Uses of Medicinal Agents, including their Description and History. By ALFRED STILLE, Professor of the Theory and Practice of Medicine, and of Clinical Medicine, in the University of Pennsylvania, etc., etc. Fourth edition. Thoroughly revised and enlarged, in two volumes. Vol. I. Philadelphia: Henry C. Lea. 1874.

Materia Medica, for the Use of Students. By JNO. B. BIDDLE, Professor of Materia Medica and General Therapeutics in the Jefferson Medical College, etc., etc. Sixth edition. Revised and enlarged, with illustrations. Philadelphia: Lindsay & Blakiston. 1874.

The Nature and Treatment of Venereal Diseases, with Numerous Cases, Formulæ and Clinical Observations. By ROBERT A. GUNN, M.D. New York: Asa K. Butts & Co., Publishers. 1874.

Croup in its Relations to Tracheotomy. By J. SOLES COHEN, M.D., Lecturer on Laryngoscopy and Diseases of the Throat and Chest, in Jefferson Medical College. Philadelphia: Lindsay & Blakiston. 1874.

The Complete Hand-book of Obstetric Surgery; or, Short Rules of Practice in Every Emergency, from the simplest to the most formidable Operations connected with the Science of Obstetrics, with numerous illustrations. By CHAS. CLAY, M.D., late Senior Surgeon and Lecturer on Midwifery, St. Mary's Hospital, Manchester, etc., etc. From the Third London edition. Philadelphia: Lindsay & Blakiston. 1874.

Inflammation of the Lungs, Tuberculosis and Consumption. Twelve Lectures. By LUDWIG BUHL, Professor of Pathological Anatomy and General Pathology in the University of Munich, etc., etc. Translated by permission from the Second German edition by Matthew D. Mann, M.D., and Samuel B. St. John, M.D. New York: G. P. Putnam's Sons. 1874.

The Science of Homœopathy ; or, a Critical and Synthetical Exposition of the Doctrines of the Homœopathic School. By CHAS. J. HEMPEL, M.D. Boericke & Tafel: New York, Philadelphia, Baltimore and San Francisco.

The Breath, and the Diseases which Give it a Fetid Odor. By JOSEPH W. HOWE, M.D., author of "Emergencies," Clinical Professor in the Medical Department of the University of New York, etc., etc. New York: D. Appleton & Co. 1874.

On Cerebria and other Diseases of the Brain. By CHAS. ELAM, M.D., London, Fellow of the Royal College of Physicians, etc., etc. Philadelphia: Lindsay & Blakiston. 1872.

PAMPHLETS RECEIVED.

Transactions of Medical Society of New Jersey. 1874.

Report of 105 *Cases of Operations for Cataract.* By B. JOY JEFFRIES, A.M., M.D., Ophthalmic Surgeon to the Massachusetts Charitable Eye and Ear Infirmary, etc.

The Temperance Question from the Standpoint of the Present. By JNO. MORGAN MCKOWN, M.D., Arcola, Ill.

The Legal Relations of Emotional Insanity. By E. LLOYD HOWARD, M.D., of Baltimore, Md. Extracted from the transactions of the American Medical Association.

CLINICAL CONTRIBUTIONS.

Three cases of Induration of the Os and Cervix Uteri, the result of Syphilis.

Two cases of Syphilitic Insanity.

Four cases of Anomalous Localities of Chancres—extra genital—with Remarks. By M. H. HENRY, M.D., Surgeon in Chief of the State Emigrant Hospital, Ward's Island, New York, etc., etc. 1874.

JOURNALS RECEIVED.

The American Medical Weekly—Oct. 24, 31, Nov. 7, 14.
" Atlanta Medical and Surgical Journal—November.
" American Journal of Insanity—October.
" American Journal of Syphilography and Dermatology—October.
" Boston Journal of Chemistry—November.
" Boston Medical and Surgical Journal—November.
" Cincinnati Lancet and Observer—November.
" Chicago Journal of Nervous and Mental Disease—October.
" Clinic, Cincinnati—Oct. 24, Nov. 14.
" Detroit Review of Medicine and Pharmacy—November.
" Druggists' Circular—November.
" Eclectic Medical Journal—November.
" Indiana Journal of Medicine—November.
" Kansas City Medical Journal—November.
" Laboratory, Boston—October.
" London Lancet—October.
" Medical and Surgical Reporter, Philadelphia—Oct. 24, 31, Nov. 7, 14.

The Medical Times, Philadelphia—Oct. 17, 24, 31, Nov. 7.
" Medical Record, New York—Oct. 15, Nov. 2.
" Medical News and Library—November, and Supplement.
" Medical Press and Circular—October.
" Medical Examiner—Nov. 1.
" Nashville Journal of Medicine and Surgery—November.
" New Remedies, New York—October.
" New York Medical Journal—November.
" Pacific Medical and Surgical Journal—November.
" Peninsular Journal of Medicine—November.
" Practitioner, London—October.
" Pharmacist—November.
" Richmond and Louisville Medical and Surgical Journal—October.
" St. Louis Medical and Surgical Journal—November.
" Southern Medical Record—October.
" Sanitary Journal of Public Health—September.
" Virginia Medical Monthly—November.

Editorial.

"Preparatory Medicines."

What are they? The *Sanitary Journal*, of Toronto, Canada, for September, quotes us at length, as condemning the use of "preparatory medicines," in language utterly regardless of orthography and syntax. The journal referred to is highly creditable to its editor, but needs a new proof reader. H.

"Not so Black as Painted."

Under this caption the *Clinic* of November 14th, 1874, quotes from the CHICAGO MEDICAL JOURNAL of November, 1874, a short notice of Dr. Minor's new work on Child-bed Fever, which can scarcely be called complimentary. Unwilling to depend too much on a very retentive memory, we have searched the number of the CHICAGO MEDICAL JOURNAL indicated, and can find no notice whatever of the book in question. Now, we have sins enough of our own to answer for, without being made responsible for those of our neighbors, especially when they consist in criticisms upon "taste," themselves etymological blunders. Whatever we may have to say of the book in question, we shall not call it a "brochuoe," as we have still an old copy of "Spier and Surenne," a relic of school-boy days, which will protect us from such an exhibition of bad taste and ignorance. H.

The movement recently inaugurated in London to establish a memorial to the late Dr. Francis E. Anstie, has assumed, under the judicious management of those having it in charge, a most sensible direction. It is now designed to raise a fund which shall be applied to the education of his son, in the manner desired by his father, whose wishes in this regard have been so suddenly and unexpectedly frustrated by his untimely death. Dr. Anstie left his family, it appears, in somewhat straightened circumstances, and it is therefore fortunate that the custodians of this fund are endowed with a share of practical good sense, so rare in the present day of unfinished monuments to the forgotten dead. H.

A Compilation of Returns of Vital Statistics *of the Chief Cities of the World, for the week mostly included within the first two weeks of September*, 1874.

City.	Week ending	Deaths.	Rate per 1000 of Population.
Paris	September 18, 1874.	720	20
Brussels	" 12, 1874.	91	29
The Hague	" 12, 1874.	33	18
Amsterdam	" 12, 1874.	106	19
Copenhagen	" 10, 1874.	120	31
Christiana	" 15, 1874.	25	18
Berlin	" 12, 1874.	467	29
Breslau	" 5, 1874.	147	34
Vienna	" 12, 1874.	257	21
Rome	" 6, 1874.	130	27
Turin	" 6, 1874.	85	21 (Annual.)
New York	August 29, 1874.	618	31 "
Brooklyn	" 29, 1874.	225	26
Philadelphia	" 29, 1874.	267	19
Calcutta	" 1, 1874.	204	24 (Annual.)
Bombay	" 25, 1874.	265	21
Madras	July 31, 1874.	298	39
London	September 19, 1874.	1,242	19 (Annual.)
The United Kingdom (twenty-one cities)	" 19, 1874.	3,383	23 (Annual.)
Edinburgh	" 19, 1874.	----------	21
Glasgow	" 19, 1874.	----------	26
Dublin	" 19, 1874.	----------	30
Liverpool	" 19, 1874.	----------	36
Chicago	" 12, 1874.	230	*29.9+ (Ann'l)
			†26.58 "
"	" 19, 1874.	188	*24.44+ "
			†21.72 "

* Estimating the population at 400,000. † Estimating the population at 450,000.

There were about 200 births in Chicago, in each of the above weeks, as stated to us by Mr. J. W. Russell, the Secretary of the Board of Health.

The number of births in London for the week ending September 19, was 2,314. For the same period, in London and twenty other large towns of the United Kingdom, 5,407.

One of the deaths registered during the week ending September 19, 1874, in London, was of a servant whose age was stated to be 103 years; the cause of death was certified as bronchitis. The death of a gentleman, on Sept. 12, was referred to "heart disease, accelerated by taking chloral hydrate." A little girl, aged seven, died, in Guy's Hospital, from hydrophobia.

The 1,242 deaths occurring in London, included 105 from scarlet fever, and not one from small-pox. Scarlet fever is increasing, and prevails fatally in Kensington Town, in Dublin, and in eighteen large English towns.

Chicago Mortality Report for October, 1874. Reported by Dr. BEN. C. MILLER, Sanitary Superintendent.

MORTALITY IN MONTH OF OCTOBER, 1874.

Accident, by drowning	3	Debility, general	7
" by fall	4	Delirium tremens	3
" in planing mill	1	Diabetis	1
" run over by bus	1	Diarrhœa	17
" run over by buggy	1	" chronic	5
" by shooting	1	Diphtheria	10
" by railroad	3	Dropsy, general	4
Abscess, pelvic	2	" abdominal	1
Apoplexy	8	Dysentery	11
Asphyxia	1	Dyspepsia	1
Asthma	1	Enlargement of bronchial glands	1
Ataxia, locomotor	1	" of embolia	1
Ascites	4	Enteritis	11
Atelectasis pulmonum	1	Entero-colitis	8
Bowels, perforation of	1	Epilepsy	1
Brain, congestion of	8	Exposure	1
" inflammation of	3	Erysipelas	2
" softening of	3	Exhaustion	1
Bronchitis	5	Fever, puerperal	1
" capillary	6	" remittent	1
Cancer	1	" scarlet	6
" of breast	1	" typhoid	33
" of liver	1	Fungus hematodes	1
" of uterus	4	Gastritis	3
Cholera infantum	34	Gastro enteritis	3
" morbus	1	Hemorrhagica purpura	1
Consumption	63	Heart, disease of	4
Convulsions	74	" congestion of	1
" epileptic	1	" dropsy of	1
Croup	9	" organic disease of	1
" membranous	2	" mitral valvular disease of	1
Cyanosis	2	" valvular disease of	3

Hip, disease of	1
Hydropericarditis	10
Inanition	14
Intemperance	2
Intussusception	1
Icterus	1
Jaundice	2
Kidneys, Bright's disease	3
" inflammation of	1
Liver, disease of	1
" cirrhosis of	1
Lungs, congestion of	3
" gangrene of	1
" hemorrhage of	1
" œdema of	1
Meningitis	8
" cerebro-spinal	4
" tubercular	2
Neglect at birth	1
Old age	18
Paralysis	4
Pericarditis	1
Peritonitis	3
Pneumonia	23
" typhoid	5
Pleurisy	2
Pharyngitis	1
Scrofula	1
Septicæmia, puerperal	1
Shock, following surgical operation	1
Stomach, ulceration of	2
Syphilis	2
Tabes mesenterica	22
Teething	9
Trismus	5
Tonsilitis	2
Suicides	3
Manslaughter	4
Uræmic poisoning	1
Uterus, hemorrhage of	2
Whooping cough	4
Total	566

Premature births, 10; Still births, 70. Total 80

COMPARISON.

Deaths in month of October, 1874	566
" " September, 1874	809
Decrease	243
Deaths in month of October, 1873	644
Decrease	78

AGES.

Under one year			175	Thirty years to forty			44
One year to two			92	Forty	"	" fifty	43
Two	years to three		25	Fifty	"	" sixty	26
Three	"	" four	9	Sixty	"	" seventy	22
Four	"	" five	6	Seventy	"	" eighty	19
Five	"	" ten	26	Eighty	"	" ninety	7
Ten	"	" twenty	21	Ninety	"	" one hundred	3
Twenty	"	" thirty	18	Total			566

Colored	9	Males	311
White	557	Females	255
Total	566	Total	566

Married, 157; Single, 409. Total 566

NATIVITIES.

Belgium	2	Ireland	59
Bohemia	6	Italy	3
Canada	7	Mexico	1
Native—Chicago	89	Norway	3
Foreign, "	239	Scotland	5
United States, other parts	82	Sweden	13
Denmark	1	Wales	1
England	8	Unknown	3
Germany	74	Total	566

Deaths daily, 18¼. Mean temperature, 53.3°. Rain fall, 2.55 inches.

MORTALITY BY WARDS.

Wards.	No. Deaths.	Pop. in 1874.	Percentage.
1	6	5,725	one death in 954
2	1	4,830	" " 4,830
3	13	14,861	" " 1,143
4	10	15,361	" " 1,536
5	26	20,078	" " 772
6	47	35,916	" " 764
7	59	31,722	" " 538
8	48	29,143	" " 607
9	29	31,654	" " 1,092
10	12	17,385	" " 1,449
11	11	14,022	" " 1,275
12	24	16,792	" " 700
13	13	17,892	" " 1,377
14	24	16,720	" " 697
15	65	45,545	" " 701
16	40	21,922	" " 548
17	36	20,777	" " 327
18	20	21,392	" " 1,069
19	4	4,677	" " 1,169
20	10	8,995	" " 899
	498	Ratio of deaths to population in 1874, one death in 699.	

No. deaths in Wards	498
Accidents	14
Bridewell	1
County Hospital	11
Foundlings' Home	19
Hospital for Women and Child'n	1
Industrial Home	1
Manslaughter	4
Mercy Hospital	10
Morgue	1
Police Station	1
St. Luke's Hospital	2
Suicides	3
Total	566